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ABSTRACT

This volume contains suggestions, reading lists, and instructional materials designed for the classroom teacher planning a unit or course on science fiction. Topics covered include "The Study of Science Fiction: Is 'Future' Worth the Time?" "Yesterday and Tomorrow: A Study of the Utopian and Dystopian Vision," "Shaping Tomorrow, Today--A Rationale for the Teaching of Science Fiction," "Personalized Playmaking: A Contribution of Television to the Classroom," "Science Fiction Selection for Jr. High," "The Possible Gods: Religion in Science Fiction," "Science Fiction for Fun and Profit," "The Sexual Politics of Robert A. Heinlein," "Short Films and Science Fiction," "Of What Use: Science Fiction in the Junior High School," "Science Fiction and Films about the Future," "Three Monthly Escapes," "The Science Fiction Film," "Sociology in Adolescent Science Fiction," "Using Old Radio Programs to Teach Science Fiction," "'What's a Heaven for?' or; Science Fiction in the Junior High School," "A Sampler of Science Fiction for Junior High," "Popular Literature: Matrix of Science Fiction," and "Out in Third Field with Robert A. Heinlein." A brief section of teaching ideas and a bibliography are appended. (RB)

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1. Papers should ordinarily run no more than 10-12 pages, typed, double-spaced.
2. Writers who wish to submit brief notes should consider them for the Shoptalk section of a particular issue.
3. Avoid footnotes, unless they are absolutely necessary.
4. The ARIZONA ENGLISH BULLETIN exists to serve all teachers of English, but its primary allegiance is to the National Council of Teachers of English. Writers should attempt to make their articles as practical and useful as possible to the classroom teacher-audience the BULLETIN serves.
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ARIZONA ENGLISH BULLETIN

Fall 1972 - - - - - - - - - - SCIENCE FICTION IN THE ENGLISH CLASS

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Preface to the Issue----------SCIENCE FICTION IN THE ENGLISH CLASS

For many students in many schools, science fiction has become one of the most popular electives in the English curriculum. Schools with more conventional English programs often discover that using books like Orwell's 1984 or Bradbury's MARTIAN CHRONICLES or Clarke's CHILDHOOD'S END or Miller's A CANTICLE FOR LEIBOWITZ or devising thematic units around topics like "Man's Questions about Tomorrow, Today" or "Worlds to Come" or "Utopias and Dystopias" attract and fascinate students. Maybe more important for students and teachers alike, science fiction can involve students in age old questions basic to man yesterday, today, tomorrow, and all the tomorrows to come. What is the nature of justice? What is the good life and what roles do the individual and society play in defining that good life? What can the individual do when his concept of the good life differs drastically from that of his neighbors or society as a whole? What is the nature of God? Why does man despoil his world time after time, planet after planet? What does technology offer us or threaten us with in the present and the future? What is the nature of the good man? Why does the good man often suffer and the evil man often goes unpunished? Why does man search for newer and different worlds? What makes man perpetually unsatisfied with his present condition? Literature, all good literature,posits questions like these and attempts to find some tenable or tentative answers or alternatives. So does good science fiction in books as different as John Wyndham's THE DAY OF THE TRIFFIDS or Walter Miller's A CANTICLE FOR LEIBOWITZ orRobert Heinlein's STRANGER IN A STRANGE LAND or Ray Bradbury's MARTIAN CHRONICLES or Frank Herbert's DUNE or Roger Zelazny's LORD OF LIGHT or Ralph Blum's THE SIMULTANEOUS MAN.

Maybe one of the early reasons why science fiction was so popular (and remains so for many people) was its adventure and excitement, the thrill of "Whoosh-Zoom-off-We-Go-to-Venus-with-Buck-Rogers" or "Facing-the-Evil-Emperor-Mingo-on-the-Planet-Mungo-with-Flash-Gordon-and-Friends." That sense of excitement still pervades many science books, but today's reader may demand more and he will often find far more than mere thrills and excitement. He may find serious books taking up serious questions about man's role in a technocratic society, social roles today and tomorrow, prophecies and warnings of the world to come, utopias and dystopias, fantasy and escapism, ecological problems today and tomorrow, or religion and man's need for God. Whatever the reader finds today in reading science fiction, he is likely to find more than just another space thriller. If science fiction was once predictable or stereotyped, it rarely is nowadays.

The articles in this issue should make clear the variety of ideas and books and materials available in any study of science fiction. Two articles are concerned with the nature of science fiction and some justifications for using it in the classroom (Zimmerman and Stewart). One article, a compendium of information, is on utopias and dystopias (Keller and Rosen). Six articles are devoted to specific ways of using science fiction in the classroom (Haley, Ogan, King, Bradshaw, Jakiel, and Whalen). One article takes up the problem of science fiction and its religious bent or implications (Babrick). Two articles discuss the work, from quite dissimilar points of view, of Robert Heinlein (Myers, and Whetton and Donelson). Two other articles have titles of science fiction films, galore (Boyd and Wolfe). One article comments on several science fiction magazines (Huntley), and finally two articles are devoted to adolescent science fiction titles (Root and Smith). All in all, a rich variety of materials and approaches and ideas and titles about science fiction for any classroom English teacher.

What does science fiction have going for itself? Why might it prove worthwhile for classroom consideration? It has at least three R's -- relevance, respectability, and readers. It is of today and tomorrow and students do care about today and they must care about tomorrow, and science fiction's guesses about tomorrow do attract young people. Whether Ray Bradbury caused it single-handed is a moot point, but certainly science fiction has gained intellectual and pedagogical repute in the last few years. And people of all ages do read science fiction, it does turn them on, and it does keep their interest. That just possibly might be a good enough reason to consider reading it and using it in the classroom.

THE STUDY OF SCIENCE FICTION: IS 'FUTURE' WORTH THE TIME?

Errol Zimmerman, Central High School, Phoenix

It was the first day of English 262, "Science Fiction and Fantasy," and I was trying to prepare my high school students for the work that was to be done during the next 18 weeks. First was short synopses of the five novels to be read, then guidelines on the two original short stories which students were required to write, then incidental information about the number and nature of testing. But shortly after what I had considered to be "an exciting presentation" had begun, a student demanded my attention.

"Just what is the course about?" he asked. "I mean, what is there to science fiction that's worth the time?"

It was a good question. It was the old relevance question, the question of what social, psychological, or aesthetic value rested in the study of science fiction. While on the surface it merely asked for information about what was to be learned, the student's tone suggested the implication that science fiction was "fantasy stuff" with little application to reality. It mirrored the question asked by an experimental psychologist-friend when I enthusiastically announced that I would be teaching science fiction. "In an age of cultural and political complexity," he asked, "How the hell can you justify teaching Jules Verne and Buck Rogers?"

To the science fiction reader who goes on his first date with an Isaac Asimov book in his hand, who survives American history by reading ANALOG magazine, and who believes the second half of the 20th Century to be nothing more than a continuous sci-fi novel, defending the value of science fiction is difficult to place in argumentative terms. To the sci-fi addict, science fiction is an emotional experience that "cynics" can understand only by sampling the works of Burgess, or Herbert, or Clark, or Vonnegut. Yet many otherwise literate human beings are unaware that science fiction has reached respectability (as critics Moskowitz, Philmus, Wollheim, and Hillegas will attest), and that sci-fi literature is more relevant to the youth of today than a thousand Salingers or Malamuds or Updikes or Bellows. What science fiction needs is not more critical studies to affirm its value as a literary and social force, but the techniques of Madison Avenue to convince a doubting public that science fiction is for real. The possibilities are limitless. One 60-second television commercial might feature Robert Heinlein as a sculpturer building a model universe from paper mache. After 30 seconds of watching Heinlein perfect the structure, Ray Bradbury would appear with a fireman's helmet and blow torch. As the model universe is burned to ashes, the phrase "So it goes" would appear across the screen.

Perhaps this approach ignores the fact that science fiction, born with Hugo Gernsback's magazine AMAZING STORIES although its roots extend centuries back, has largely been deserving of the "fantasy stuff" label. It achieved popularity through the pulp magazines of several decades ago, and it evolved primarily as lurid, escapist literature. As Richard Lupoff writes in "Science Fiction Hawks and Doves: Whose Future Will You Buy?", early science fiction placed an emphasis on rapid and violent action amidst exotic settings. The prose style, Luboff writes, was "subordinate to the gimmickry and plot, and subtlety, formal experimentation, obscurantist effect, and virtually any other deviation from the concrete and declarative was alien to the pulp tradition." (Richard Lupoff, "Science Fiction Hawks and Doves: Whose Future Will You Buy?" SCIENCE WONDER STORIES, May, 1971)

The pulp spirit of science fiction, which is referred to as "traditional" science fiction by Lupoff and Hillegas (THE FUTURE AS NIGHTMARE, 1967), supports an optimism regarding the status quo and the course of human development. This optimism constantly reaffirms the beneficent role of the machine. This optimism will allow Asimov, in I, ROBOT, to envision a utopia only after machines control the destiny of the earth, or Heinlein, in ASSIGNMENT IN ETERNITY, DEVIL MAKES THE LAW, and CITIZEN OF THE GALAXY, to present simplistic concepts of morality where the "clean hero" fights the "dirty villain" against a future-world backdrop, with the hero winning the girl, collecting the fortune, and living happily ever after.

Traditional writers can be traced to Jules Verne, who turned out over 50 novels from 1863-1905 including VOYAGE TO THE CENTER OF THE EARTH. Verne, with the assistance of John W. Campbell (THE BLACK STAR PASSES, 1930; THE MIGHTIEST MACHINE, 1934; editor of ASTOUNDING SCIENCE FICTION magazine until his death in 1971), helped to establish what is called by Donald Wollheim (THE UNIVERSE MAKERS, 1971) as the "Cosmogony of the Future." This concept of the future begins with initial voyages to the moon and planets, followed by flights to the stars, followed by the rise of a Galectic Empire (established through contact with other intelligent beings in other solar systems), followed by the burgeoning of the Galactic Empire, then a decline and fall of the Galactic Empire, which ends with a power struggle and the rise of a permanent Galactic civilization. The ultimate finish will result when Galactic harmony leads to a challenge of God. (Donald Wollheim, THE UNIVERSE MAKERS, N.Y.: Harper, 1971, pp. 32-35)

The "fantasy stuff" reference to science fiction, therefore, is not exactly unwarranted. Yet a growing body of sci-fi literature which challenges all the assumptions mentioned above has emerged within the past two decades, literature which casts serious doubts concerning the use of technology and the destiny of man. This group of writers, sometimes called "anti-utopian" (Hillegas) or "anti-traditional," traces its beginning to H. G. Wells, socialist, internationalist, and author of THE TIME MACHINE (1895) and other works. Included in this group are the major science fiction writers of today, such as Frank Herbert (DUNE, 1965), J. G. Ballard (CRYSTAL WORLD, 1966), and Kurt Vonnegut, Jr. (SLAUGHTERHOUSE-FIVE, 1966).

This "new generation" of science fiction writers strives to make statements concerning the nature of individual life and the structure of society, and their works contain few utopias. As indicated by pioneer anti-utopian works, Huxley's BRAVE NEW WORLD and Orwell's 1984, the comment of these writers lies in a warning to mankind as to the dangers of uncontrolled power, whether scientific or political. Science is generally presented as the "evil" which must be harnessed before man becomes, as Thoreau once envisioned, "a tool of his tools."

The style of the anti-utopian sci-fi writers is often uncomparable to traditional science fiction. Ballard writes as an artist might paint a mural. He begins by sketching his subjects, then adds detail and color, then works on greater depth of impact and feeling without changing to another scene or event. Kurt Vonnegut, as a contrast, writes with the poetic finesse of a pole vaulter, depending upon terse sentences and the understatement to carry his message. The "So it goes" phrase made famous by its repetition in SLAUGHTERHOUSE-FIVE is but one example.

The diversity in form and content of the anti-utopian writers requires that a definition of science fiction be established. Wollheim sees science fiction as being "that branch of fantasy, which, while not true to present day knowledge, is rendered plausible by the reader's recognition of scientific possibility." Wollheim then breaks the definition into four classifications: imaginary voyages, future predictions, social satire, and scientific inventions.

To Wollheim, not only is anti-utopianism regarded as science fiction but the satire of Swift in GULLIVER'S TRAVELS as well. (Donald Wollheim, THE UNIVERSE MAKERS, N.Y.: Harper, 1971, p. 46)

This brief comparison of "traditional" and "anti-utopian" sci-fi writers is not intended to be a definitive historical analysis of science fiction. It is presented merely as ammunition which might be used to instruct those who believe science fiction to be in the "pulp era," to provide some evidence that the "fantasy stuff" of decades ago has taken on the role of social criticism. Yet my answer to the student who wanted to know why science fiction "was worth the time" and my friend who could not justify "Jules Verne and Buck Rogers" was not based upon the fact that Kurt Vonnegut or Ray Bradbury or Arthur C. Clarke have ushered in a new age of sci-fi literature. Science fiction, that body of literature encompassing both utopian and anti-utopian themes, can be justified because it is the only body of literature we have which seriously examines the future.

Predicting the future was once the job of soothsayers and mystics, the men of government, and the men of science. When Robert Malthus predicted doom for mankind with his 1798 essay "The Principle of Population," he was within the realm of public acceptability. As a man of science, and a minister, the future was his for speculation. But when Cyrano de Begerac wrote "Voyage to the Moon" over a century earlier, it was considered, as Verne's writings were, nothing more than a "child's tale" with no value for adults.

English literary criticism, beginning with its foundation in Dryden, Pope, and Johnson, affirmed that literature must be "true to the classics" and "true to nature." (ENGLISH LITERARY CRITICISM 1660-1800) Samuel Johnson (1709-1784) viewed the purpose of literature as being "to improve the world," (Samuel Johnson, RAMBLER, March 17, 1750) but the improvement was to be made by examples of "good" prevailing over "examples of bad," and through literature which "mirrors the manners of men." (Samuel Johnson, PREFACE TO SHAKESPEARE, 1781) Science fiction, with its departure into worlds unknown, could not fit this criteria, just as it cannot fit the "new criticism" of today which calls for truth to the experience of life.

Yet without critical support, science fiction has demonstrated a surge in public interest. Lupoff reports that in the past decade the number of science fiction books published has tripled, and even Book-of-the-Month Club is now considering, and has selected, science fiction as its monthly choice. The increase in popularity, reflecting perhaps the emergence of the anti-utopian writers, indicates that people now, more than ever before, are looking toward the future in the hope that mistakes of the past will not reoccur.

The study of science fiction, therefore, offers both the teacher and student the opportunity to ponder what future social and technological advancement might bring. It offers the opportunity to test the theories and philosophies of writers who present the future as they see it, and it enables readers to enter the realm of "future making" themselves.

It can be argued effectively that all of the ecological and social crises of today are the result of man's historic failure to predict the effect of his actions. The smog which chokes the major cities of our nation, the water which has been blemished by industrial wastes, the riots which spring from economic and social deprivation--would they have occurred had men looked to the future instead of the present? An examination of the national problems which have resulted from society's failure to look forward is echoed in the speech of Eliot Rosewater (Vonnegut's GOD BLESS YOU, MR. ROSEWATER) who pleaded "Nobody will talk

about the really terrific changes going on. Nobody except maybe a sci-fi writer here and there has guts enough to really care about the future...really notice what machines do to us, what wars do to us, what cities do to us, what big, simple ideas do to us, what tremendous misunderstandings, mistakes, accidents, and catastrophies do to us." (Kurt Vonnegut, Jr., GOD BLESS YOU, MR. ROSEWATER, N.Y.: Seymour Lawrence, 1966, p. 119)

If a study of the future, and interpretations of the future from the minds of talented and creative writers, is not of importance to youth and public education, then what is? While some question the relevance of science fiction to education, it could be argued that science fiction, a literary form that has gained respect with the development of science, is more relevant to student needs than traditional areas of the curriculum. If Toffler's FUTURE SHOCK is to be believed, it is the responsibility of the schools to prepare youth for the changes which will arrive in the future. If Charles Reich (THE GREENING OF AMERICA) is to be believed, the youth of today are interested in shaping a more "just" tomorrow, a future devoid of prejudice and inequality. How can one better unite youthful idealism and futuristic philosophy than through the reading of science fiction?

Science fiction studies offer many creative approaches to futurism. One is through a comparative analysis of utopian ideals. After discussing the plots and themes of selected science fiction works, students may make comparative evaluations of the future as seen by Heinlein, or Asimov, or Orwell, or Clark. Students also have the opportunity to make their own utopian design, designs with safeguards to make certain that man's individuality will be retained. The combination of "science fact" with science fiction presents an even wider opportunity for exploration of the future (for example, the question whether television can be used to enforce traffic laws or the question whether experimentation in genetics has potential to create future nightmares).

What is there to science fiction that's worth the time? At the end of the 18-week class, the student who had asked the question had discovered much about science fiction that was "worth the time." Shaping the future is everyone's concern.

YESTERDAY AND TOMORROW: A STUDY OF THE UTOPIAN AND DYSTOPIAN VISION

Elaine J. Keller and Deborah H. Rosen, University of Illinois
Under the supervision of Prof. Dorothy Matthews

This unit on utopian and dystopian literature has been prepared with the busy English teacher in mind. Although many units on this subject have been written, we feel that ours is at once comprehensive and easy to follow. From the following overview, the teacher can see that our work encompasses not only an historical framework, but a social and literary perspective as well. We trace the beginnings of utopian thought starting with Plato and continuing up to the most recent important utopian work, WALDEN TWO, (1948). Our study of dystopian literature is focused on 1984 and BRAVE NEW WORLD and is dramatized by our selection of a 1922 play, R.U.R.

Our unit, as distinct from others, provides thorough discussion questions that illustrate the inter-relationship of the parts of the study to the whole; composition assignments that crystallize student thought; group projects that encourage student cooperation and stimulating library work; and a list of clearly delineated themes which recur in typical dystopian works. Moreover, our appendices include annotated secondary sources for both teacher and student, and a student reading list that could easily be dittoed for distribution to the students.

We feel that the relevance of the study of utopian literature to contemporary students is clearly established in the concerns of the utopian scheme. Abolition of war, equality of the races, elimination of poverty and disease were problems that plagued not only men of Plato's era, but have troubled men throughout time. Today's student is no different.

The following outline is presented here as an overview of the major concepts to be covered in our unit. In the introduction, the topics of major emphasis are relevancy of the study of utopia and the meaning of utopia. The central section, or corpus, of the unit deals with the differences between the utopian and dystopian visions. Discussions may focus on definitions, recurring elements and dominant schemes of philosophy in utopia and dystopia. These discussions may in turn serve as a prelude to the exploration of the theory that the 18th and 19th century utopian dream is declining and is being replaced by a 20th century nightmare. A look at classical utopias can provide the background necessary to student research on experimental utopias and a discussion of WALDEN II. B.F. Skinner's utopian novel provides the link between romantic idealism of the utopians and the pessimism of Huxley, Orwell and Capek. A composition assignment culminates the unit in a discussion of the worth of the utopian vision. All the discussions, lectures and assignments are presented in logical progression enabling the student and the teacher to see the entire picture.

OVERVIEW OF THE UNIT

I. Introduction: Explore the reasons for studying utopia.
   A. Discover the student's concept of utopia.
   B. Bring out the relevancy of a study of utopia to today's student.
   C. Assign a composition: As a utopian, what solutions can you suggest for those problems you feel are the most important in today's society?
II. Corpus: Discuss the differences between the utopian and dystopian visions.
   A. Define utopia and dystopia.
   B. Present the philosophical schemes of utopia.
   C. Outline the recurring elements of utopian and dystopian literature.
   D. Discuss the theory that "the utopian hope is declining and is being replaced

by nightmarish apprehensions" (Chad Walsh).

E. Lecture on selected classical utopias.

F. Assign an oral presentation to culminate the library research on experimental utopias.

G. Discuss WALDEN II.

H. Culminate the readings of 1984 and BRAVE NEW WORLD with class discussion. Dramatize R.U.R. in class.

III. Conclusion: Justify the study of utopia.

A. Assign a composition based on the student's outside reading of a dystopia.

B. Culminate the unit in a discussion on the relationship of the study of utopian and dystopian literature to man's hope for the future.

Duration of the Unit: 12-18 weeks (approximately one semester's work)

Required Texts: 1984, BRAVE NEW WORLD, R.U.R. (to be read in class), and excerpts from WALDEN II

Major Assignments (to be given at the discretion of the teacher, allowing ample time for each project):

I. Group library project: 2 or 3 students per group

A. Assign each group the task of researching one of the following experimental utopians (or another with teacher approval). See Appendix C for suggested research sources.

1. The Shakers, 19th century
2. New Harmony, (Owenites), 19th century
3. Fruitlands, 19th century
4. Brook Farm, 19th century
5. Icaria, 18th and 19th century
6. Oneida, 19th century
7. Yellow Spring Community, 19th century
8. Nashoba Community, 19th century
9. Haverstraw, 19th century
10. Coxsackie Community, 19th century
11. Northampton Community, 19th century
12. Sylvania Association, 19th century
13. One Mentian Community, 19th century
14. Social Reform Unity, 19th century
15. Leraysville Phalanx, 19th century
16. Morningstar, 20th century

B. Assign to one group the task of researching recent experimental "hippie" communes. Periodicals would be helpful here.

II. Individual reading project: Assign the reading of one dystopia at the beginning of the unit to be culminated in a paper (see section III) at the end of the unit (see appendix A).

Yesterday and Tomorrow: A Study of the Utopian and Dystopian Vision

I. INTRODUCTION: Class discussion: Explore the reasons for studying utopia.

A. Discover the student's concept of utopia.

B. Bring out the relevancy of a study of utopia to today's student.

1. Suggested discussion questions:
   a. Do you know that there is a history of utopian thought?
   b. Do you think there are utopian thinkers today?
   c. With what problems or issues would a utopian be concerned?
   d. If you were planning a utopian society, what kinds of things would need to be changed to make life perfect?
2. Some concerns of a utopian:

a. Abolition of war: This will probably be the first response to question d. Try to relate the students' feelings about American involvement in Vietnam to the attitudes of classical utopians toward war. (See section IIE for background.)
b. Equality of the races: Cultural and racial clashes in America have parallels throughout history; for example, caste systems, problems between labor and management, religious wars, enslavement.
c. Abolition of poverty and disease: How would the utopian deal with this issue? What problems would he face? Has there been any time in history when man has not been confronted with poverty and sickness? What would happen if we did abolish all poverty and disease? How would we handle that?
d. Family structure: Students may approach this issue from different angles. Be prepared to relate experimental solutions to conventional family structure: growth of communes, decreasing importance of sexual taboos, increasing divorce rate, availability of information on birth control, abortion controversy. Are these new problems?
e. Equality of the sexes: The discussion of family structure may lead into this topic. When did the women's lib movement begin? Be prepared to give students information on classical utopian attitudes towards women's rights (see section IIE).
f. Credibility and propaganda in an age of mass communication; censorship: The teacher may have to initiate this discussion. For instance, while discussing women's lib, you might ask: why do we hear more about women's lib today? This could lead to a discussion of mass media and the problems of credibility, propaganda, censorship, and invasion of privacy by mechanical devices. Try to relate these contemporary problems loosely with historical precedents of repression, religious intolerance, and early politicking.
g. Education: Do you think American education today is doing what it should be doing for you? Do you think your individuality is being encouraged or stifled? Do you know anything about European high school educational systems? (European schooling is much more rigorous; cumulative exams are given after grammar school to determine whether the student will go to a vocational or academic high school. The academic high school requires the student to speak two languages fluently and to study the classics intensively.) Is the European system the answer? What would be the ideal educational system?
h. Individuality in a mass society: in what ways do you feel you are not an important part of society? In what ways are our relations impersonalized and dehumanized? How has the age of automation affected individuality? Does the recent growth of suburbs indicate a mood of America? Are the suburbs a form of utopia? (Discussion of movies seen by the students concerning a modern search for happiness might illustrate the points above.)

C. Assign a composition: As a utopian, what solutions can you suggest for those problems you feel are the most important in today's society?
1. Before allowing class time for the writing of the composition, review the highlights of the previous discussions on concerns of a utopia (especially if any time has lapsed since those discussions).
2. Select for reading aloud those compositions which offer the most practical solutions to current problems.
3. Discuss the problems of planning a utopia:
a. Can obvious social problems be solved?
b. Do people differ in their opinions of what <u>is</u> the perfect life? (See the poem "A Tramp's Utopia," in Appendix A, for a good illustration of this.)

c. Can you have utopia and still have individuals?
d. What is the difference between contentment and happiness?
e. Does man as a species have a definite nature? Can that nature be changed? (For extra credit, this list of books might be given to the students to read. Encourage the outside reading and perhaps a brief oral presentation to the class after particular books are read: Robert Ardrey's AFRICAN GENESIS and SOCIAL CONTRACT and TERRITORIAL IMPERATIVE, Konrad Lorenz' ON AGRESSION, Desmond Morris' NAKED APE, and B. F. Skinner's BEYOND FREEDOM AND DIGNITY.)
f. Can a society be rationally blueprinted and then created without doing violence to the stubborn human factor?
g. How far can man shape his own destiny?
h. Are there built-in limits to the scope of his planning?
i. What is happiness?
j. Does utopian planning lead to happiness?
k. Is personal freedom a luxury or a necessity?
l. Are man's nature and the utopian dream locked in inescapable conflict, so that one or the other must yield?
m. Do we really want utopia?
n. Is utopia a bore?

II. Corpus: Discuss the difference between the utopian and dystopian vision. (Note: the following lists are presented as guidelines only and therefore may appear to be simplifications.

Utopia	Dystopia
A. A definition of utopia is: an ideal, perfect, and imaginary society presented as superior to the real world.	A. A definition of dystopia is: an imaginary society presented as inferior to the real world. (Critics also refer to dystopia as anti-utopia, inverted or satiric utopia.)
B. Utopian schemes assume the truth of the following:	B. Dystopian schemes assume the truth of the following:
1. Man is basically good; the doctrine of original sin is denied. Evil resulting from civilization can be erased by education.	1. Man is a mixture of the savage, sadist, schemer, and egoist.
2. Man can be conditioned.	2. Man can be molded.
3. There is no need for a dichotomy between happiness of the individual and that of society; in a good society, total happiness can be achieved.	3. There is a difference between the happiness of the individual and that of society.
4. Man is a rational being.	4. Man is partially and intermitently a rational animal.
5. The future holds a finite number of possibilities which can be sufficiently foreseen for practical purposes.	5. Man is unable to imagine the future.
6. The purpose of utopia is man's earthly welfare.	6. Dystopia is concerned with and for order.
7. Happiness is never overcome by boredom.	7. Contentment is preferred to happiness.
8. Rulers can be just; the danger in tyranny is slight and can be rectified by education.	8. The more power a man has, the greater the danger of corruption.

9. Utopia is not opposed to freedom.

C. Elements that recur in utopia are: (add others as they become apparent)
1. Uniform dress is common.
2. Communal nurseries are provided.
3. Nature is well-tended.
4. Body and character are stressed.
5. The favorite art is massive, clean functional architecture.
6. Euthanasia is appealing.
7. Patterns of marriage include polyandry, group marriage, and abolition of the family; but monogamy is still most prevalent.
8. Women are equal to men.
9. There are eugenic controls.
10. Crime is reduced to a minimum.
11. Self-expression is avoided.
12. Work and vocation are governed by a central government. Leisure is plentiful. Tendency toward socialism.
13. Autocracy is primary type of government.
14. Private property is abolished.
15. Education is important to the maintenance of society.
16. The happiness of the individual and the state merge.
17. There are three ruling classes: rulers, guardians, and workers.

9. Obligations to the state prevent individual freedom.

C. Elements that recur in dystopia are:
1. Standardized clothing is necessary.
2. Children belong to the community.
3. Nature is left untamed and is fenced out.
4. The body is downgraded; the world is puritanical.
5. The dystopian society is stable and uncreative; there is little literature or art.
6. Euthanasia is utilized.
7. Marriage is a partnership for childbearing.
8. Women are equal; but the woman is often portrayed as a temptress.
9. Childbearing is controlled, and usually deprecated.
10. Tranquilizers are used to lower vitality and restlessness.
11. Man is in danger of losing his personal identity.
12. Occupation is determined by the government at birth. There is little leisure.
13. The dictator is heard but not seen.
14. Private property is abolished.
15. Conditioning is the only type of education; disaffected intellectuals or groups leave.
16. Contentment is preferred to happiness.
17. Special class of inspectors from the elite.
18. Language is simplified and standardized so as to discourage odd thoughts.
19. Spurts of rebellion show up in the form of love or lust.
20. Numbers replace names.

D. The following tenets support Chad Walsh's theory that "the utopian hope is declining and is being replaced by nightmarish apprehensions." Allow time for the students to speculate on why the works of the 18th and 19th century

are basically utopian-oriented, and why those of the 20th century are basically dystopian-oriented.

1. Most people of the 20th century feel that certain aspects of utopianism have failed; i.e., socialized medicine, welfare, communism. Some of utopia's highest goals, such as the winning of peace and individual freedom seem further from realization than ever before. However, during the 18th and 19th centuries, there was still hope for a future utopia.
2. The threat of nuclear war and a past of two world wars has produced feelings of pessimism and cynicism. The people of past eras never experienced the fear of a world-wide holocaust.
3. The lack of individuality in the 20th century is due to tremendous military, political and technological power. During the 18th and 19th centuries, individuality was not threatened by a terrifying political or scientific force.
4. A breakdown in organized religion is a symptom of a growing belief that the universe is not ordered but chaotic. Scientific thinkers have made questionable a belief in the Great Plan. 20th century man's view toward God is "If God is good, there is no god; if God is bad, he is not God." In contrast to this view, in the past there was a widespread belief in the existence of the Great Planner and the concept of the Chain of Being, which provided a place for man somewhere between the angels and the animals. Man's acceptance of his fate is illustrated by Pope's precept in "The Essay of Man," "Whatever is, is right."
5. Life appears meaningless to the 20th century man; but to the 18th and 19th century man, utopian life was a means of ordering man's own life.
6. The scientific theories of Copernicus, Darwin, and Freud slowly destroyed man's ideas regarding his status in the universe. In the 16th century, Copernicus discovered that the earth revolves about the sun; this contradicted the scientific thinking of the time that the sun and the universe revolved about the earth. Thus, Copernicus destroyed the belief that man was the center of the universe.
   Darwin's "origin of Species" published in the 19th century claimed that man was part of the animal kingdom. This contradicted the past idea that man was positioned somewhere between the angels and the animals. Man's superiority is lessened further.
   Freud's work in psychoanalysis during the 19th and 20th centuries shattered the idea of man's rationality in dealing with his environment. Freud claimed that man is ruled by unconscious motivation.
   Anthropologists such as Lorenz, Mead, Ardrey, and Morris theorize that man is no more than a killer-ape. His instincts and aggressive behavior attest to his bestiality.
7. Symptoms and results of a utopian and dystopian outlook are reflected in 20th century man's cynicism and pessimism which accompany a dread of the future, and 18th and 19th century man's optimism and hope for a better future.
   Another symptom of a dystopian outlook is the escapist tendency which can be seen through the growth of the use of drugs, the spread of communes and occultism, and the growth of mental illness.
   The impersonalization of life is both a symptom and a result of the dystopian outlook of the 20th century.

E. Lecture on selected classical utopias. Some aspects of selected classical utopias are presented here to give background for the study of 18th to 20th century utopias. The teacher is urged to choose exerpts from several works to implement classroom study.
   1. Plato, THE REPUBLIC. Volume III of THE DIALOGUES OF PLATO, 3rd ed., 5 vol., London: Oxford University Press, 1892.

Since THE REPUBLIC of Plato is the earliest known account of an ideal society, the history of utopian literature properly begins with it. Plato (427-347 B.C.), the pupil of Socrates and the master of Aristotle is said to have been the first to ask the important questions of a utopia. Important aspects of Plato's utopia include:

a. Fiction is censored.
b. God is not the author of all things, but of good only.
c. The fear of death is taken away by not speaking of "down below."
d. Truth is highly valued.
e. Gymnastics are important.
f. One must abstain from intoxication.
g. The elder rule the younger; guardians are tested for loyalty to the State.
h. Purity of the race is the number one principle.
i. Each man has one job only.
j. Wives and children of guardians are to be in common (father and child not known to each other--common dining, common houses).
k. In society, matrimony is sacred, but ruled by rulers--unions planned, population controlled, but without people realizing it.
l. Offspring of good parents are left with nurses; offspring of inferior parents put away.
m. Woman can bear children at 20 years till 40 years. Men may father children from age 25 till 55; after this, they may marry, but no children.

2. More, Sir Thomas, UTOPIA. First published 1516. Trans. by Peter K. Marshall, Washington Square Press, Inc., N. Y., 1965. pb.
Sir Thomas More (1478-1545), lawyer, Lord High Chancellor of England, humanist and martyr, wrote UTOPIA in Latin and published it at Louvain in 1516. The first modern account of an ideal commonwealth, its title, which means "nowhere," has been adopted by the languages of the world as a designation for all stories on the theme. Important aspects of More's utopia include:

a. Utopia is divided into households or farms with no fewer than 40 persons; every 30 families have one ruler.
b. Besides husbandry, each person develops an interest in one other science.
c. No one works more than 6 hours per day.
d. Officials work just as do laborers.
e. The felicity of life is thought to exist in the free liberty of the mind.
f. The size of the family is regulated.
g. Communal dining is enforced.
h. There is plenty for all; no one asks for more than he needs.
i. No one is allowed to loiter or stray from appointed work; bondage is penalty.
j. The leaders stress virtue and pleasure.
k. Marriage is monogamous.
l. There is no death penalty; labor is precious.
m. Every man is his own lawyer.
n. War is evil; fight only in defense.
o. There is free religion; and after-life is acknowledged.

3. Bacon, Francis, THE NEW ATLANTIS, in Vol. III of THE WORKS OF FRANCIS BACON, 4 vol., R. Gosling, first published, 1627.
Sir Francis Bacon (1561-1626) is considered the founder of modern interest in inductive logic. THE NEW ATLANTIS, which Bacon began about 1624 but never finished, was published in 1627; it provided much of the inspiration of the founding of the Royal Society some 33 years later.

Some aspects of Bacon's utopia are:

a. Utopia remains unknown to the outside world, yet is knowledgeable about the rest of the world by sending convoys every 12 years.
b. The monogamous society is important.
c. Technology is advanced.
d. There is one supreme ruler.

4. Campanella, Thomas. CITY OF THE SUN. 1637.

THE CITY OF THE SUN is a quaint hodgepodge of Christianity, astrology, and metaphysics, and it shows exceedingly little grasp of the psychological need that militate against so schematic a utopia. But it stands in the direct line of utopian development, particularly in the emphasis of eugenics, education and the aristocracy of merit and education.

Some aspects of Campanella's utopia include:

a. Astrology rules people's lives more than gospel.
b. Principal ruler is elected.
c. Property is abolished.
d. Education is important.
e. Women are equal; matings are arranged by the state.
f. Economic state is communistic.
g. Common dining halls and dormitories are necessary.
h. One must do appointed work.
i. Happiness of the state and individual merge.
j. Crime is reduced to a minimum.

5. Bellamy, Edward, LOOKING BACKWARD. The Modern Library, Random House, N. Y., 1951 (originally published 1887), pb.

Edward Bellamy (1850-1898), journalist, author, and social reformer, published LOOKING BACKWARD in 1888. The timely appearance of the book resulted in its overwhelming acceptance. Some aspects of Bellamy's utopia are:

a. Private property is abolished.
b. Happiness of the state and the individual merge.
c. Work and vocation are governed by a central committee.
d. Personal recreation and interest in the arts is encouraged.
e. The economy is socialistic in form and benefits.
f. Crime and disease are reduced to a minimum.
g. Man's earthly welfare is society's main concern.
h. The idea prevails that men can rule themselves justly and rationally without becoming dictatorial.

6. Hertzka, Theodore, FREELAND: A SOCIAL ANTICIPATION, Doubleday, Appleton and Co., 1891.

Theodore Hertzka (1845-1924), a Hungarian-born Austrian economist and agrarian, wrote Freeland in Germany in 1890. His followers united in the International Freeland Society with the express purpose of bringing to reality one nation visualized in the book. Some aspects in Hertzka's utopia are:

a. Associations of laborers are set up. All get their share of net profits according to amount of work contributed.
b. Women, children, and old men have a right to be provided for in proportion to the level of the average.
c. Women's work is not in the kitchen or wardrobe; she is thought of only as an ornament.
d. There is no need for prisons, barracks, or hospitals (disease is a social disease).
e. Everyone votes (over 25 years of age).
f. Extremely happy people live here. There are no cares; one cannot "become" poor.
g. Education is the key.

7. Morris, William, NEWS FROM NOWHERE, Reeves and Turner, 1892.
Artist, poet, socialist, William Morris (1834-1846) wrote NEWS FROM NOWHERE in 1891. Disgusted by the ugliness as well as by the inequality of industrialized Victorial England, Morris synthesizes his aesthetic and political ideals in this work. Some aspects of Morris' utopia are:
   a. Complete individual freedom is emphasized.
   b. Money is unheard of; necessities are free.
   c. Family structure is loose; sexual freedom is widespread.
   d. Parental supervision of children is minimal.
   e. There is no private ownership or free enterprise.
   f. People do not tire of happiness.
8. Wells, H. G. A MODERN UTOPIA. Scribner and Sons, 1905.
A MODERN UTOPIA was the first important utopia of this century. Wells imagines an entire planet as his utopia. Some aspects of his utopia are:
   a. There is maximum general freedom.
   b. Frequently, people migrate from ugly regions to lovely regions in search of beauty.
   c. The world State is the sole landowner of earth.
   d. Everyone has money and home, but the standards are strict.
   e. There are no crimes; all deformed and diseased babies are killed at birth.
   f. Islands are provided for incurables and drunks.
   g. Minimum wages are enforced.
   h. The state rears children.
   i. Childbirth rate is controlled.
   j. Motherhood is claimed as a "living."
   k. Education is important and encouraged.
   l. Marriage is basically for the sake of children.
   m. Prohibition of alcohol, tobacco, wine, drugs, meat is enforced.
   n. Religion is based on the idea that man is basically good, not the idea of "original sin."
9. Butler, Samuel, EREWHON, OR OVER THE RANGE. E. P. Dutton and Co., N. Y., 1917. Originally published 1872.
EREWHON satirizes many ideas frequently expressed in the utopias of the 19th century, and in particular the belief that the extensive use of machinery will automatically bring happiness to mankind. Some aspects of Butler's utopia are:
   a. Body and character building are stressed.
   b. Leisure is plentiful.
   c. Isolated communities are desired.
   d. Crime is reduced to a minimum.
   e. Technology is discouraged.

F. Assign an oral presentation to culminate the library research on experimental utopias.
1. Direct students to bring out the most important features of their utopias. Students should cover as many of the following points as are applicable (and any others the students found interesting):
   a. Abolition of war
   b. Equality of the races
   c. Abolition of poverty and disease
   d. Family structure
   e. Equality of the sexes
   f. Credibility, propaganda, censorship
   g. Education
   h. Individuality
2. Display all posters and other illustrations that students might have

created to enhance their presentations.

5. Assign the following topic for composition (in class): Compare and contrast the classical utopias with the experimental utopias. Why didn't the classical utopists expect failure?
   a. Read those papers which best realize the romanticism of the utopists as compared to the practical reality which faced the experimental utopists.
   b. Discuss the failures of the communal experiments and again ask, "Are man's nature and the utopian dream locked in inescapable conflict, so that one or more of them must yield?" If so, can human nature be changed? (This would be a good time for those who did the extra credit reading--see section IC3--to participate in discussion. Otherwise the teacher should be responsible for introducing the principle ideas of Ardrey, Morris and Lorenz.)

G. Discuss WALDEN II, by B. F. Skinner. New York: The MacMillan Company, 1948.
   1. B. F. Skinner (1904-) psychologist and teacher, wrote WALDEN II in 1948. Although it is too early to assess its place in the development of utopian literature, it is notable for the belief that in the recently formulated behavioristic psychology, man has a means of conditioning himself to accept the good life which is available to him. WALDEN II is an experimental farmland somewhere in the contemporary U. S.; it was conceived and put into operation by T. E. Frazier, a psychologist. To this community come six visitors, one of them the narrator of the novel.
   2. Prepare in advance excerpts to read aloud or dittoed. WALDEN II is probably too advanced for the average student.
   3. Discuss the following topics:
      a. The principles and practice of behavioral engineering in WALDEN II.
      b. Leadership in WALDEN II.
      c. The relative emphasis on science and art in Skinner's educational scheme.
      d. The significance of WALDEN II's difference in place and time from other theoretical utopias.
      e. Duties of members of WALDEN II.
   4. Ditto Joseph Krutch's essay, "Ignoble Utopias," (or a portion of it). Available in Richter's book or Krutch's THE MEASURE OF MAN, 1954, pp. 56-76. This essay directly responds to Skinner's behavioral conditioning. This essay provides a stimulating argument against mind-control. Ask these questions:
      a. Is Walden II a place where you would be happy?
      b. Is Walden II a utopia?

H. CORE BOOKS: 1984, BRAVE NEW WORLD, and R.U.R. For each of the core books that are to be read by the students and discussed in class, we have provided a list of elements and extensive discussion questions. The teacher is also urged to consult indexes in the library for some of the many helpful articles which have been written on these books, especially 1984 and BRAVE NEW WORLD.
   1. Orwell, George. 1984. Text, Sources, and Criticism, ed. Irving Howe, Harcourt Brace, and World, Inc., 1963. (Teacher's ed.)
      Orwell, George. 1984. Harcourt, Brace, and Co., New York, 1949, pb. 1984 has become a catchword for totalitarian nightmare. It is Orwell's grim prophecy of things to come. Fearing certain trends in modern life--the growth of the superstate, the rapid advance of technology, the sterility of emotion--Orwell wrote a savage book to show us where we might be headed. Students should ask themselves if Orwell was right, if his 1984 might be less than a decade away.
      a. Ideas (Given to facilitate comparison and contrast of the core books.)

1. A small group of intellectuals control the world.
2. Mankind dreads destruction by a third world war.
3. A special class of inspectors are called the Thought Police.
4. Applied psychology is an important aspect of this society.
5. Language is simplified to discourage odd thoughts.
6. Concern for order is of utmost importance.
7. Literature and arts are discouraged.
8. Spurts of rebellion appear in the form of love and lust.
9. Dictator is heard but not seen.
10. Standardized clothing is provided.
11. Numbers replace names.
12. Importance of the body is deemphasized.
13. Women are thought of as temptresses.
14. Contentment is stressed rather than happiness.
15. The world is puritanical in its own way.

b. Suggested discussion questions:

1. Have students define doublethink and show how it works in this passage: "Oceana was at war with Eurasisa. Oceana had always been at war with Eurasia." Is doublethink an invention of the Party in 1984 or can you see it at work today?
2. See the instruction that appears on Winston's desk, page 35: "times 17.3.84 bb speech malreported africa rectify." What does malreported mean?
3. How will the destruction of words eliminate thought-crime? Is a concept like freedom possible if there is no word for it in the language?
4. Explain the look of fright on Mrs. Parson's face when her children are around. Does it turn out to be justified?
5. Why do you think Orwell makes O'Brien such a strong, fascinating figure? Trace the stages of Winston's breakdown under O'Brien's expert handling.
6. Name other literary or historic figures who have taken a stand against dogmatic authority.
7. Is there any part of Winston that O'Brien failed to reach? How do you know?
8. If Winston had died hating Big Brother, would it have damaged the Party? How would it change the meaning of the novel?
9. Explain the three Party slogans: War Is Peace; Freedom Is Slavery; Ignorance Is Strength. Can you see any illustrations of the slogans in today's world?
10. Why does Winston feel that if there is hope, it lies in the proles? Does his attitude change during the course of the novel?
11. Describe the quality of life in 1984. What does the food taste like? What are the odors in Winston's flat? Explain Winston's feeling, page 63, that "The truly characteristic thing about modern living was not its cruelty and insecurity, but simply its bareness, its dinginess, its listlessness."
12. Is 1984 a tragedy? Is Winston Smith a tragic figure?
13. What are Winston's personal convictions at various points in the novel?
14. What does the use of torture reveal about the state and O'Brien?
15. How does 1984 qualify as a dystopia?
16. What is the large theme that is outstanding about this novel?

2. Huxley, Aldous. BRAVE NEW WORLD. Bantam Books, N. Y., 1968. Orig. Pub. 1932.

This novel draws its inspiration and derives its nightmares not from

the misdeeds of communists but from the popular culture of America. It is a satire not so much on the literary utopias as on the popular utopia yearnings of the average man who wants nothing so much as to be happy. The small group of intellectuals controlling the world have discovered that happiness and social stability are perfectly feasible, so long as freedom is eliminated. What no society can have is all three. BRAVE NEW WORLD shows how happiness and stability can be scientifically produced.

a. Ideas:
   1. There is ultimate eugenic control.
   2. Communal nurseries are provided.
   3. A strict caste system is a part of society.
   4. Work and vocation are determined by the central government.
   5. Refinement of happiness and values is provided for the individual.
   6. Society is isolated and self-contained.
   7. The individual loses his personal identity.
   8. An outsider faces a hostile society.
   9. Technology is the ultimate ruler.

b. Suggested discussion questions:
   1. What elements seem most frightening to you about this society? Do you see any of these as being exaggerated traits that might already exist in our own society?
   2. Do you think that advances such as test-tube babies will come about in the near future? What do you see as some necessary controls on its usage?
   3. How does this dystopia compare with others that you may have read?
   4. What do you feel are some of the strengths and weaknesses of the plot and major characters?
   5. Looking at the Ford City people through John Savage's eyes, what do you think upset him most about them?
   6. Huxley is known for his comments on morality. Do you feel that he is in any way commenting on our society?
   7. Why does John commit suicide?

3. Capek, Karel. R.U.R., translated from the Czech by P. Selver and adapted for the English stage by Nigel Playfair, Reader's Enrichment Series, Washington Square Press in 1923.

Drama is naturally good as a classroom tool since students enjoy taking parts and reading the play. R.U.R. may be a melodrama, superficial and stilted, as some critics claim. However, it is an effective play and successfully shows the problems encountered in a dystopia. Domin's frustration at the failure of his plan and the attempts by Gail and Helena to give the Robots a "soul" are especially effective.

a. Recurring ideas:
   1. Technical progress emancipates man.
   2. Technical progress demoralizes man.
   3. Industrialism is capable of supplying modern needs.
   4. Man does and should fear inhuman machinery.
   5. Men are idealists.
   6. Work is an essential part of man's existence and well-being.
   7. Love is essential to the future of the race.
   8. Man is an imperfect instrument from a technical viewpoint.
   9. Man is already on his way to being a dehumanized robot.

b. Discuss the following questions:
   1. What about the play R.U.R. impressed you, either positively or negatively, the most? What do you remember first when you

think of it?

2. What do you think is the play's strongest point? Its weakest?
3. Was there anything about the play which seemed too incredible for you to accept? Were these problems, if any, handled skillfully or were they detrimental to the effect of the play?
4. What points do you think you would make if teaching this book to high school students?
5. Discuss the structure of the play. Is the theme consistent? Is this an asset or a liability?
6. Do you think this play would be better read or acted? Explain.
7. Since the play was written in 1922, is it dated as far as a young 1972 audience is concerned?
8. Analyze the characters in R.U.R. Are they round or flat? Are they believable? What are their functions within the context of the play?
9. Which of the characters is Capek's mouthpiece?
10. What is Helena's role in the story?
11. Why is mankind wiped off the face of the earth in this story?
12. What major mistakes concerning human nature did the scientists on the island make? What was the effect of their mistake?
13. What do the robots symbolize?
14. One critic made the statement that R.U.R. would have ended better at the end of ACT I. Why didn't Capek have it end there? What are your feelings concerning the epilogue?
15. Can you give a good explanation for the setting of the play?
16. One critic remarked that if Capek's question "touches only man's ability to live with technology and the machine, then his fears are exaggerated--modern man has demonstrated his ample powers of adaptation--technology has opened new employment." Do you agree or disagree?
17. What do you think is Capek's stand on these issues? What is he trying to say?
18. What is the image given in the play of man as compared to the Robots?
19. What are the differences between the two Rossums? What kind of philosophy did each of them have? What philosophy was the better?
20. At the end of the play, do we see a perfect society--since we have robots (who know their jobs and do them well) with emotions (so they can reproduce)?
21. What were some motifs or aspects typical of utopian--or dystopian--literature which you noticed in the play?
22. Do you think R.U.R. would be a good choice for high school classes? Why or why not?

III. CONCLUSIONS

A. Composition assignment. Topic: Ask the students to write an extended paper with the following questions as guidelines:

1. How does your dystopian work distort the utopian dream? Discuss the concerns of a utopian, i.e., the abolition of war, equality of the races, etc., with the concerns of your outside reading.
2. How does your novel or short story fit the pattern of dystopian outlook? Include in your discussion some of the elements listed for the core books studied in class.
3. What hope do you see for the future? Where does hope lie? If it lies in people, how can we justify our diagnosis of human nature as greedy and predatory? On the other hand if man is so base, why does he con-

tinue to dream?

SUPPLEMENTARY AND ALTERNATE USES FOR THIS STUDY

Though we recommend a minimum of 12 weeks on this unit, it is possible to shorten the study to six to eight weeks. After reading through the unit, the teacher can delete, at her own discretion, those sections she feels are irrelevant to her purpose. We caution the teacher, however, to read thoroughly through the whole unit before omitting any sections; for we have been careful to put the outlined study in a logical progression of ideas.

Appendix A, the Reading List of Dystopias, could function in various ways in the classroom. The list could be used as outside reading completely removed from the study of utopia. Several students could be assigned one book and be directed in group discussion. The teacher could assign oral or written book reports to be given at any time during the unit.

In order to facilitate the assigning of a book to a student, we have grouped the books listed in Appendix A according to reading level. Those books listed first are of higher quality and more importance to the unit:

EASY	AVERAGE	DIFFICULT
R.U.R.	BRAVE NEW WORLD	WE
ANTHEM	1984	CANTICLE FOR LIEBOWITZ
AN UNKNOWN CITIZEN	THIS PERFECT DAY	GULLIVER'S TRAVELS
A TRAMP'S UTOPIA	ONE	CHILDHOOD'S END
THE MACHINE STOPS	FAHRENHEIT 451	ATLAS SHRUGGED
LOST HORIZON	PLAYER PIANO	LIMBO
NINE TOMORROWS	PLANET OF THE APES	APE AND ESSENCE
	MESSIAH	ISLAND
		WATCH THE NORTHWIND RISE
		A CRYSTAL AGE
		LOVE AMONG THE RUINS

APPENDIX A
READING LIST OF DYSTOPIAS

Isaac Asimov, NINE TOMORROWS: TALES OF THE NEAR FUTURE (NY: Doubleday, 1959). Nine short stories. As the title of this work indicates, these are tales of the future--a future which stifles individuality. People are electronically conditioned for everything--reading, vocations, etc. Excellent for the science fiction freak and the short story lover.

W. H. Auden, "The Unknown Citizen: To JS/07/M/378 This Marble Monument Is Erected by the State." Poem found in many anthologies.

Pierre Boulle, PLANET OF THE APES (NY: Signet, 1963). This tale hurtles the reader into a distant simian world where man is brute and ape intelligent. The novel is harrowing, hypnotic and meaningful. The shock ending is unmatched. Highly recommended--great reading.

Ray Bradbury, FAHRENHEIT 451 (NY: Ballantine, 1950). Novel. Montag is a fireman in a society which burns books. He begins to doubt the intelligence of his occupation and begins to read. He keeps books in his home; he is discovered. In a terrifying section, Montag is stalked by the horrible Mechanical Hound. He miraculously escapes to a utopian-like society where books, true love and knowledge are valued. Exciting reading.

Arthur C. Clarke, CHILDHOOD'S END, (NY: Ballantine, 1964). Aliens from another solar system take over the world and impose a utopia on the earthlings. The

results are both terrifying and desired. Recommended for science fiction addicts.

E.M. Forster, "The Machine Stops." 1968. 61 pages. Short story. (Check your library Short Story Index for location). Forced to go underground, mankind is convinced that no one can survive on the skin of the globe without a respirator. A vast machinery completely operates this luxurious society. Kuno, a young non-conformist sneaks away and visits the surface of the earth; unwittingly he causes the ruin of the machine and the breakdown of the underground world. Highly readable. Recommended.

Robert Graves, WATCH THE NORTHWIND RISE (NY: Creative Age Press, 1949). A poet of our era is summoned to New Crete by the incantations of a witch named Sally. Although New Crete seems to answer most of the poet's dislike of his own world, he finds life distinctly troubling. For the student interested in the occult.

James Hilton, LOST HORIZON (NY: Pocket Books, 1933). A group of explorers in the Himalayas get lost and find the mystical, enchanting land of Shangri-la. One of the explorers falls in love with this hidden, peaceful world and does not want to leave. A beautiful story.

W.H. Hudson, A CRYSTAL AGE (NY: Dutton, 1887). A traveller comes to a great country house during the Crystal Age. The housemother welcomes him but the fate in store for him is not a pleasant one. A spooky love story.

Aldous Huxley, ISLAND (NY: Harper, 1962). The happy inhabitants of the island of Pala have evolved a new form of Buddhism. They achieve "suchness" through prayer, ceremony and liberal doses of happy pills made from yellow mushrooms. A forecast of our LSD era.

Aldous, Huxley, APE AND ESSENCE.
After BRAVE NEW WORLD, Huxley's later nightmare, APE AND ESSENCE, shows the British survivors of atomic war as worshippers of Belial. They offer human sacrifices and make the sign of the horns. Most central to the dystopian tradition is an idolatrous adoration of society, the life force, evolution, or the deified leader. The normal religion seems to be worship of Big Brother or the Well-Doer, who is the embodiment of the community. Opposition to him is not simple crime but sacrilege.

David Karp, ONE, (NY: Vanguard, 1953). Novel. A professor of English is the unlikely hero of this story who fights against the repression and conformity that the State maintains. Convicted of herasy, the professor undergoes brainwashing to rid him of this individuality and identity. Provides provocative discussion of individuality in a conformist society. Recommended.

Ira Levin, THIS PERFECT DAY (Conn: Fawcett, 1970). From the author of ROSEMARY'S BABY comes this story of "Chip" who lives in a society where boys should have only one of four names: Christ, Marx, Wood & Wei. Throughout the novel, it is evident that Chip is different from those who are controlled through drugs by the mysterious UNI. Chip's struggle to free himself leads him to dangerous involvement with a secret society and an eventual confrontation with the monsterous "computer." Great reading! (Beware of censorship problems).

Walter M. Miller, CANTICLE FOR LEIBOWITZ (NY: Bantam, 1959). In this most remarkable of science fiction novels, it is the Roman Catholic Church and its monastic orders which are the saving remnant during a new dark age. When civilization and atomic war return, it is a spaceship filled with bishops, priests and religious figures that carry the hopes of the earth to a distant planet.

George Orwell, ANIMAL FARM (NY: Signet, 1946). Novel, ANIMAL FARM tells how the beasts of Manor Farm, after continued mistreatment, rebel against their drunken master, take over his property, and establish an ideal community. The utopia slowly turns into a tyrannical state, ruled by the pigs who govern the gullible

farm animals by use of a police state, promises and propaganda. Provides good basis for examination of the difficulties of maintaining a utopia. Highly recommended.

Ayn Rand, ANTHEM (NY: NAL, 1946). Novel. Equality 7-2521 lives in the dark future. He is an intelligent youth who asks too many questions and is assigned as street sweeper. When exploring a tunnel, he discovers some rusted electrical equipment and gets it working. Wanting to share his discovery with the philosophers, he takes light to the city. Threatened with severe punishment for going beyond his rank, he escapes into the forbidden forest which no one has ever crossed. Good uncomplicated related reading.

Ayn Rand, ATLAS SHRUGGED (NY: Signet, 1957). Novel. ATLAS SHRUGGED is a humourless book of 1168 pages developing the same theme as many other dystopias. This is America in the latter part of the 20th century. The government has taken over one activity after another in an ultry New Deal. There is general corruption on all levels and sweeping inefficiency. One by one the great industrialists, frustrated beyond endurance, simply disappear, fleeing to a hidden community in Colorado.

Jonathan Swift, GULLIVER'S TRAVELS. Satire. Students may wish to read either Book II of Swift's work on Laputa, the unmistakable inverted utopia where crazy and impractical scientists try to run all mundane affairs in the spirit of pure mathematics, or Book IV, which describes a utopia of sorts in his land of the rational horses. Suggested for the college-bound reader.

Gore Vidal, MESSIAH (NY: Ballantine, 1965). Novel. A sinister novel about a strange new cult that springs to life in California, and of the man whose demonic urge and terrifying force of personality makes him the prophet of a worldwide religion based on the worship of death. Grim, but fascinating.

Kurt Vonnegut, Jr. PLAYER PIANO(NY: Avon, 1952). Novel. The setting of PLAYER PIANO is Illium, New York, sometime in the not-too-distant future, where people have been replaced by machines. Dr. Paul Proteus, high official in this mechanized society, grows discontent and joins a revolt against the machines and the men that run them. Vonnegut freaks will love this one.

Evelyn Waugh, LOVE AMONG THE RUINS (London: Chapman and Hall, 1953). Novel. The British satirist Waugh has written a tale mocking the semi-socialist welfare state in England.. In this society, criminals are national heroes, and the industry of death flourishes. Miles, a rehabilitated criminal, advances to a high position in the state but remains a subversive, plotting to commit another crime. Limited appeal.

Bernard Wolfe, LIMBO (NY: Ace, 1952). Novel. A different type of dystopia about a race of men who amputate their aggressiveness. Long, but full of suspense and adventure.

Eugenii Zamiatin, WE. 1924. 185 pp. Short novel. (See a BASIC BOOK COLLECTION FOR HIGH SCHOOLS in your library for publisher). Written in diary form, this is the story of D-503, a mathematician of the One State, and the builder of The Integral. The world of D-503 is a sterile, highly organized society, one which is isolated from all of nature. He joins a revolution because of his love for E-330, who later betrays him. Dramatic forerunner of 1984.

"A Tramp's Utopia." Poem. Author Unknown.

One evenin' as the sun went down
And the jungle fire was burnin'
Down the track came a hobo hikin'
And he said: "Boys, I'm not turnin'
I'm headed for the land that's far away
Beside the crystal fountains,
So come with me, we'll all go see
The Big Rock Candy Mountain.

In the Big Rock Candy Mountain
There's a land that's fair and bright;
Where the handouts grow on bushes,
And you sleep out every night.

Where the boxcars are all empty,
And the sun shines every day,
On the birds and the bees and the cigarette trees,
And the lemonade springs where the bluebird sings,
In the Big Rock Candy Mountain.

In the Big Rock Candy Mountain,
All the cops have wooden legs,
The bulldogs all have rubber teeth
And the hens lay soft-boiled eggs;
The farmers trees are full of fruit,
And the barns are full of hay.
Oh, I'm bound to go where there ain't no snow,
Where the rain don't pour, the wind don't blow,
In the Big Rock Candy Mountain.

In the Big Rock Candy Mountain,
You never change your socks,
And the little streams of alcohol
Come tricklin' down the rocks.
There the brakemen have to tip their hats,
And the railroad bulls are blind,
There's a lake of stew and whisky, too,
You can paddle all around'em in a big canoe,
In the Big Rock Candy Mountain.

In the Big Rock Candy Mountain,
All the jails are made of tin,
And you can bust right out again
As soon as you are in.
There ain't no short-handled shovels,
No axes, saws or picks.
I'm going to stay where you sleep all day,
Where they hung the Turk that invented work
In the Big Rock Candy Mountain.

Recent Additions

James Cook Brown, THE TROIKA INCIDENT. Doubleday Projections, 1971. A spaceship expedition explores an undiscovered utopia. Has been compared to WALDEN TWO.

Robert Silverberg, TOWER OF GLASS. Bantam, 1971. A world of synthetic people. Similar to R.U.R.

APPENDIX B
SECONDARY SOURCES FOR THE TEACHER

Kingsley Amis, NEW MAPS OF HELL: A SURVEY OF SCIENCE FICTION. (NY: Harcourt, 1960). Amis begins with Verne and Wells and moves into science fiction today, discussing various themes such as sex, honor, insecurity, rural nostalgia. The chapters "Utopia 1" and "Utopia 2" deal with this unit.

W.H.G. Armytage, YESTERDAY'S TOMORROWS (Toronto: University of Toronto Press, 1968). A very contemporary look at old and new utopias and dystopias. Even the most

obscure utopian titles receive some mention, even if for only brief summary or critical comment. A Jungian or Freudian outlook is upheld.

J.O. Bailey, PILGRIMS THROUGH TIME AND SPACE: PATTERNS IN SCIENTIFIC AND UTOPIAN FICTION (NY: Argus Books, 1947). Bailey's work describes an enormous number of scientific romances arranged in somewhat chronological order, and then presents an analysis of ideas found running through these romances in a conventional pattern. Titles are from 1817 to 1940. Annotations are between 75-250 words. Bailey deals with theme pattern and denotes one section to inventions that were presented and fiction and have become realities.

Marie Louise Berneri, JOURNEY THROUGH UTOPIA (Freeport, New York: Books for Libraries Press, 1950). This book is divided into six major sections: 1) Utopias of Antiquity (Plato, Plutarch, Aristophanes); 2) Utopias of the Renaissance (More, Campanella, Andreae, Bacon, Rabelais); 3) Utopias of the English Revolution; 4) Utopias of the Enlightenment; 5) Utopias of the Nineteenth Century (Cabet, Lytton, Bellamy, Morris); 6) Modern Utopias (Hertzka, Wells, Zamytin, Huxley). Mrs. Berneri has included extensive excerpts from the utopias. The chronological arrangement facilitates the interrelationships and the evolution of utopian thought.

Neal Eurich, SCIENCE IN UTOPIA: A MIGHTY DESIGN (Cambridge: Harvard University Press, 1967). This is a long and difficult treatise that deals mainly with Campanella, Andreae, and Bacon. A good survey of the historical view toward utopias is covered in several chapters. "Utopias in Perspective" deals with more recent dystopias and would be of interest to the teacher.

Richard Gerber, UTOPIAN FANTASY (London: Routledge and Paul, Ltd., 1955). This book "tries to show the several characteristics of utopian literature that are the outcome of a comprehensive utopian imagination and view of life." Constructive as well as imaginary and fantasical commonwealths are considered. Titles mentioned are from 1901-1951, and are briefly annotated.

Donald J. Gray and Allan Orrick, DESIGNS OF FAMOUS UTOPIAS: MATERIALS FOR RESEARCH PAPERS (NY: Holt, 1959). This invaluable source includes condensed versions of the most important classical utopias, discussion questions, and composition assignments. Excerpts are from Plato, More, Bacon, Bellmay, Hertzka, Morris, Wells, and Skinner.

Joyce O. Hertzler, THE HISTORY OF UTOPIAN THOUGHT (NY: MacMillan Co., 1923). Part one traces the history of utopian thought from the early prophets to recent social anticipations. Part two analyzes the utopian contribution to civilization. Some important information on Bellmay, More, and Wells.

Frank E. Manuel, UTOPIAS AND UTOPIAN THOUGHT (Boston: Houghton Mifflin, 1966). An historical, sociological, psychological, political and religious look at utopia. The essays deal largely with such authors as Bellmay, More, Wells, and Huxley, their interrelationship, and differences in utopian view. None of the essays deal, however, with particular authors or works.

Karl E. Meyer, THE NEW AMERICA: POLITICS AND SOCIETY IN THE AGE OF THE SMOOTH DEAL (NY: Basic Books, 1961). "Signposts to Futopia" is the only chapter in this book dealing with the topic of anti-utopias. Meyer's work deals mainly with the political changes in the 1950's and 60's; thus, he looks to recent dystopian fiction as indicative of changing social thought. His book is the only one to deal, albeit briefly, with the works of minor dystopias such as ONE, LIMBO, AND MESSIAH.

Lewis Mumford, THE STORY OF UTOPIAS (NY: Boni and Liveright, 1922). Very little can be gained by spurious reading of this voluminous work. Chapters are closely interrelated. Authors dealt with are Plato, More, Andreae, Bacon, Campanella, Bellamy, Morris, and Wells.

Glenn Negley and J. Max Patrick, THE QUEST FOR UTOPIA: AN ANTHOLOGY OF IMAGINARY SOCIETIES (NY: Henry Schumann, 1952). The introductory chapter of this source contains an excellent analysis and definition of utopian literature. With the exception of More's UTOPIA, and Campanella's CITY OF THE SUN, the remainder of utopias represented in these selections are not available in print. Many are inaccessible except in a few libraries. There are over 30

selections; brief critical commentary provides historical continuity. An indispensable aid for the teacher.

Peyton E. Richter, UTOPIAS: SOCIAL IDEALS AND COMMUNAL EXPERIMENTS (Boston: Holbrook Press, 1971). This recent collection of essays on utopian planning and speculation, both in theory and practice, is an excellent aid for the teacher. Essays deal with classical utopists as well as contemporary dystopians. Huxley, Doestoevsky, Skinner, and Krutch are a few of the essayists included.

Francis Theresa Russell, TOURING UTOPIA: THE REALM OF CONSTRUCTIVE HUMANISM (NY: Dial, 1932). This source treats utopias from Plato to Huxley in thematic fashion: government, education, religion, and morality. An entire chapter is devoted to Bellamy's LOOKING BACKWARD.

Chad Walsh, FROM UTOPIA TO NIGHTMARE (NY: Harper, 1962). This book has been the crux and touchstone for most of our research on this topic. In an altogether lucid and provocative discussion, Walsh explores the problems of why in our century, the dystopia has replaced the utopia as the dominant type of literary speculation about the future. He treats prominent and not-so-prominent dystopias with reference to their relevance to the growing pessimism of the 20th century. Walsh further explains why the shift of perspective from optimism to pessimism could foreshadow a radical shift in the basic beliefs and attitudes of our culture. This book can be easily read in one sitting and would provide the teacher with compelling questions and thoughtful answers. A must for this unit.

APPENDIX C
RESEARCH MATERIALS ON EXPERIMENTAL UTOPIAS

W.H.G. Armytage, HEAVENS BELOW: UTOPIAN EXPERIMENTS IN ENGLAND, 1560-1960 (Toronto: University of Toronto Press, 1961).

Edward D. Andrews, THE GIFT TO BE SIMPLE: SONGS, DANCES AND RITUAL OF THE AMERICAN SHAKERS (NY: Dover, 1940).

Edward D. Andrews, THE PEOPLE CALLED SHAKERS (NY: Oxford University Press, 1953).

Arthur E. Bestor, BACKWOODS UTOPIAS: THE SECTARIAN AND OWNITE PHASES OF COMMUNITARIAN SOCIALISM IN AMERICA: 1663-1829 (Philadelphia: University of Pennsylvania Press, 1950).

V.F. Calverton, WHERE ANGELS DARED TO TREAD (Indianapolis: Bobbs-Merrill, 1941).

Elmer T. Clark, THE SMALL SECTS IN AMERICA (NY: Abington-Cokesbury, 1949).

John Thomas Codman, BROOK FARM, HISTORICAL AND PERSONAL MEMOIRS (Boston: Arena Publishing Co., 1894).

Paul K. Conkin, TWO PATHS TO UTOPIA, THE HUTTERITES AND THE LLANO COLONY (Lincoln, Nebraska: University of Nebraska Press, 1964).

Charles Crowe, GEORGE RIPLEY: TRANSCENDENTALIST AND UTOPIAN SOCIALIST (Athens, Ga.: University of Georgia Press, 1967).

Edith R. Curtis, A SEASON IN UTOPIA, THE STORY OF BROOK FARM (NY: Thomas Nelson, 1941).

Donald D. Egbert and Stow Persons, eds., and T. D. Seymour Bassett, bibliographer. SOCIALISM AND AMERICAN LIFE. 2 vols. (Princeton: Princeton University Press, 1952), Vol. I.

Charlés Gide, COMMUNIST AND COOPERATIVE COLONIES, translated by E.R. Row (NY: Thomas Y. Crowell, 1930).

John F.C. Harrison, QUEST FOR THE NEW MORAL WORLD: ROBERT OWN AND THE OWENITES IN BRITAIN AND AMERICA (NY: Charles Scribner's, 1969).

William Hedgepeth and Dennis Stock, THE ALTERNATIVE: COMMUNAL LIFE IN NEW AMERICA (NY: Collier Books, 1970).

Robert V. Hine, CALIFORNIA'S UTOPIAN COLONIES (New Haven: Yale University Press, 1966). Chap. 4, "Icaraia Speranza."

Mark Holloway, HEAVENS ON EARTH: UTOPIAN COMMUNITIES IN AMERICA, 1680-1880 (NY: Dover, 1966).

Rosabeth M. Kanter, "Communes." PSYCHOLOGY TODAY, July 1970, pp. 53-78.

Frank E. and Fritzie P. Manuel, eds. FRENCH UTOPIAS: AN ANTHOLOGY OF IDEAL SOCIETIES (NY: The Free Press, 1966).

Marguerite F. Melcher, THE SHAKER ADVENTURE (Princeton: Princeton University Press, 1941).

Charles Nordhoff, THE COMMUNISTIC SOCIETIES OF THE UNITED STATES (NY: Schocken Books, 1965).

John Humphrey Noyes, HISTORY OF AMERICAN SOCIALISMS (NY: Dover, 1966).

Pierrepont B. Noyes, MY FATHER'S HOUSE, AN ONEIDA BOYHOOD (NY: Farrar, 1937).

William H. and Jane Pease, BLACK UTOPIAS: NEGRO COMMUNAL EXPERIMENTS IN AMERICA (Madison, Wisconsin: The State Historical Society of Wisconsin, 1963).

Peton E. Richter, UTOPIAS: SOCIAL IDEALS AND COMMUNAL EXPERIMENTS (Boston: Holbrook Press, 1971).

Henry W. Sams, ed. AUTOBIOGRAPHY OF BROOK FARM (Englewood Cliffs, N.J.: Prentice-Hall, 1958).

Melford R. Spiro, KIBBUTZ, VENTURE IN UTOPIA (NY: Schocken Books, 1956).

Everett Webber, ESCAPE TO UTOPIA, THE COMMUNAL MOVEMENT IN AMERICA (NY: Hastings House, 1959).

William E. Wilson, THE ANGEL AND THE SERPENT (Bloomington, Indiana: Indiana University Press, 1964).

SHAPING TOMORROW, TODAY--A RATIONALE FOR THE TEACHING OF SCIENCE FICTION

Robert Stewart, West High School, Phoenix

"Our children should be studying Arthur C. Clarke, William Tenn, Robert Heinlein, Ray Bradbury, and Robert Sheckley, not because these writers can tell them about rocket ships and time machines, but, more important because they can lead young minds through an imaginative exploration of the jungle of political, social, psychological, and ethical issues that will confront these children as adults. Science fiction should be required reading for Future I," as Alvin Toffler said in FUTURE SHOCK. (NY: 1970, p.425).

Alvin Toffler succinctly identifies both the unique rationale for science fiction and the general weakness of the non-future-oriented curriculum that prevails in the nation's secondary schools.

A nation that has worshiped technology, unexamined in its full impacts, finds itself in the 1970's the most affluent society in history, yet perplexed by and resentful of an environment deteriorating in all vital aspects. The befouling of our air, water, and land resources has forced recognition that purely quantitative standards are inadequate; awareness of the need, additionally, for qualitative standards has reached full consciousness.

The National Academy of Science has convened a panel of experts to propose mechanisms to assess the social consequences of technological developments. A bill has been proposed by Rep. Daddario, Chairman, Subcommittee of Science, Research, and Development to set up a Technology Assessment Board which according to Harvey Brooks and Raymond Bower's in their article "The Assessment of Technology" is "to identify, assess, publicize, and deal with proposed technological developments." (SCIENTIFIC AMERICAN: Feb., 1970). This panel begins with the premise that gains from technology have far outweighed the losses, but today the question is how to retain most, if not all, benefits with less injury to our increasingly fragile physical and psychic environments.

The general criteria to be used in assessment are as follows: the general welfare, the reversibility of an option, and the shifting of the burden, whereby in advance of putting in a new technology it would have to be demonstrated to be non-injurious.

Toffler, and others who feel such a disciplined projection and assessment of technology are long overdue for our society, see the 1971 Congressional examination, debate, and defeat of additional SST funding as a watershed in this awareness.

This type of assessment is the culminating assignment for the one semester Science Fiction English selective at West High (Phoenix Union High School District). Each member of the class selects an innovation that appears imminent for our society and holds interest for him. He must document and extrpolate from the existing data and project the total effects on our society of this proposed change. The final section of the assignment requires a recommendation whether we as a society should proceed with full energies in this direction, proceed with caution while exploring other options, or drop this direction entirely. What can be more relevant for the student than an examination of what tomorrow may well hold for him? What can produce involvement in the obligations of citizenry more than the realization that to not examine future options is to accept them passively and uncritically as fait accomplis?

Earlier in the course, symposiums dealing with potential realities of the future-test tube babies, contract-option marriage, cryogenics, cloning, etc. are presented. They offer considerable opportunities for provoking interest and discussion in the many-faceted approach of role playing necessary for weighing the complicated debits and credits that are the product of change. The student can find excellent print overviews in such as YEAR TWO THOUSAND, by Herman Kahn and A.J. Weiner (Macmillan, NY: 1967); he can discover as well the many community experts who can be drawn upon for such overviews. The cassette tape 2000 A.D. (Learning Plans Inc., 1969) is also fine in this regard. Norman's 1972 paperback COLLEGE STUDENTS LOOK AT THE 21st CENTURY (Cambridge) acquaints high school students with the vital concern manifested in technological impacts displayed by their college age counterparts. The LIFE reprint of Albert Rosenfeld's "The New Man--What Will He Be Like?" (October 1, 1965) generates the controversy necessary to expose the absurdity of simplistic judgements as to the label of "progress."

PERSONALIZED PLAYMAKING:
A CONTRIBUTION OF TELEVISION TO THE CLASSROOM

Michael Haley, Boulder, Colorado

Sitting in one corner of the reading room were six seventh grade boys without a play to perform. The other two groups in the class had settled for what they could scrounge out of our piles of magazines and drama kits; but not these guys. They wanted a play for boys that wasn't ten pages long, unbearably dull, and written for three boys and five girls. Being so picky, they naturally had no chance to find "their" play.

Inspired by a stroke of luck and goaded by creeping desperation, I offered to write them a play based on the television series STAR TREK. It seemed like a good idea to all concerned, although there were, I thought, some misgivings about relying on me to produce anything more satisfactory than all those other things that had already been rejected.

Fortunately, several boys in the group were STAR TREK fans and formed an enthusiastic nucleus for the group as a whole. Upon receipt of the finished product, the entire group was excited and eager to perform. They produced the play, a short parody with an all-male cast, and presented it to our class and several others, and, if they were less than professional, they made up for all deficiencies in enthusiasm and drive. The play itself was well received by students and by teachers.

What is interesting about all this is that it offers a working, tested example of an adapted television program as used in the classroom, and as written by a non-professional. The thought that it is entirely feasible for an amateur to write dramatic materials for use in his or her own classroom is rarely considered seriously, I suspect. Unfortunately, American teachers have a tendency to wait for materials to come to them prepackaged and "perfected". It is, in my opinion, mistaken to assume that only published materials will satisfy your students.

When I ventured into my little experiment, the Star Trek series seemed to be particularly suited for adaptation to the play form. To begin with, most people are at least barely acquainted with the show since it has been around for years and enjoys a large and loyal following. Its characters all have strong identifying mannerisms which are easily captured on paper, either seriously or in parody. Add to this the formulaic plots used by the STAR TREK writers, and a strong basis exists upon which to build a script of one's own. I must also admit to being one of the program's "large and loyal following", and I found it both easy and entertaining to play around with.

If it is your desire to involve your students in dramatizing of any kind, perhaps it would be a solid investment of your time to try a custom-built play or two. Many television programs are well known to your students, and could be turned into plays by you or by them.

This presupposes a willingness on your part, as leader in the classroom, to be somewhat familiar with the favorite programs of your students. Obviously, if you intend to produce materials satisfactory to your students, you must be familiar with the programs in question. A couple of viewings of each program seems to me to be all that would be necessary in order to carefully observe them and emerge with passably accurate impressions of the shows as a whole.

A good plan of organization would be to poll your students to discover their favorite programs, and then to pick out a couple of new programs every two weeks

and make it a point to tune in on them. During the first week's viewing of each show, simply relax and enter into the thing. Try to view each program as your students would, or as you would have when you were their age. Crank up your imagination, kick the old cogs if need be, but just let loose and leave your own adult world and its prejudices behind.

When the time rolls around for viewing a program the second time, you'll be ready to make some more concrete, objective decisions and observations.--Let me note in passing that I think it would be unfair to make these kinds of observations without first having viewed the program in an open and relaxed atmosphere. Objectivity untinted by imagination and a previous understanding is, at best, a shallow affair.--Keeping in mind that you are laying the groundwork for a play, you will need to make notes on paper of a number of important items. You should briefly record what the show is about, regular character's names and outstanding traits, any unusual elements about the show which make it different or unique, the basic formula of the plots (assuming you've noticed some pattern), the manner in which conflicts are generally resolved, and last but not _____, jot down your own feelings about the show, noting goods and bads which could help you to successfully express some particularly notable aspects of the program. Remember that your play will be a distillation of the series as a whole and should contain its major easily recognized recurring themes. File your notes.

After becoming somewhat acquainted with a program, you may decide that the time is right to get a play together. If you're going to "do it yourself", you have in your notes all the basic information you will need. All that's left is to plan the play. Of course, you'll fit the characteristics of your play to the students with whom you are working at any given time. For junior highs, it is generally a good idea to limit length to 10-20 minutes, vocabulary to simple levels, and dialogue to quickly moving exchanges. Narrators are useful in filling gaps in the action. Parody goes over well much of the time, but gets old. There's no reason why a play with a serious or frankly realistic tone should be unsuccessful if it is high-interest subject matter.

If you intend to ask your students to write plays themselves, some careful thought and preparation will be necessary. I would suggest separating the class into groups, and letting each group choose a television series from which to make a play. You will be able to use this project as a convenient way to introduce your students to the basic structural elements of plays in general, and specifically of the plays they'll be doing. A class project of this sort should yield several useable plays, a lot of good experience and learning for you and your students, and, if you're lucky, you may turn a few youngsters on to writing plays on their own.

Whatever the product of your efforts and/or those of your students, flexibility and open-mindedness should dominate its implementation. No matter how good your homemade materials become, when it's time to bring them to life, they should be allowed to flow and change with the desires of you and your pupils. If granted this, the result for all concerned can only be rich and enjoyable learning.

Following is the text of the little play I got together for my kids. Notice that it is suitable for use with video and/or audio tape, and can also be easily read aloud in class. Room is left for imaginative use of sound and lighting effects (which, by the way, greatly enhanced our own production, as they can any other production of a play). Certainly of great importance is the science fiction theme, even in this comic form. It fits six boys who need a high-interest play to get them going. And that's what it's supposed to do.

STAR TRUDGE

A Play Portraying a Tale of Terror in Endless Space

Characters:

Captain James T. Quirk	The Helmsman
First Officer Pock	Sound Effects Man
Medical Officer McLoy	Narrator

THE PLAY:

Narrator: Before we start our tale to tell,
We need to state our mission well.
The ship we serve probes into space
In search of strange or unknown face
That may abide not on our map
And waits to know our searching rap.
We poke where no men dare to go,
And do our friendly faces show.
Our noble end is known to all,
We often stumble, never fall.

Our play begins with Mr. Pock
Who notes a thing he must not mock:

Pock: Captain, two unidentified objects on sensor screen A.

Quirk: Analysis, Pock.

Pock: Sensors indicate photon torpedoes on a collision course with the ship. Origin is unknown; probably alien, possibly hostile.

Quirk: Recommendation, Pock.

Pock: Captain, the logical course to follow in a case such as this is to activate deflector screens in order to avoid being blown to bits.

Quirk: Helmsman, activate deflector screens. Red Alert!

Helmsman: Aye, Aye, Sir!

Narrator: The photon torpedoes hit the ship!

Sound Effects Man: Boom!!!Crash!!!!

Narrator: Quirk is upset.

Quirk: Mister Pock, crew reactions were ridiculously slow during red alert. I want red alert crew members practicing their drills until 100% efficiency is achieved.

Pock: Captain, no starship crew has ever done better than 80% efficiency on a red alert drill. It is a fact that irrational, excitable humans simply cannot function at more than minimum standards of efficiency.

Quirk: Pock, you're the coldest, most inhuman man I've ever known.

Pock: I see no reason for compliments, Captain. I've simply stated the facts as they exist.

Narrator: Dr. McLoy bursts into the bridge area.

Sound Man: Crash!!!Burst!!!!

McLoy: Captain Quirk, as medical officer of this ship, I feel it is my duty to inform you that a deadly virus has infected the crew and is spreading quickly. It probably is a result of some odd effect caused by that torpedo that just hit us.

Pock: More likely, Doctor, it is the result of the ion storm we encountered some three weeks ago. I had a theory that those were a kind of ion which is capable of penetrating a man's brain and taking it over. It is probably taking control of the ship right now.

Quirk: My ship! Nothing takes my ship away from me. Pock, recommendation.

Pock: Computer banks indicate no cure is possible. Infected crew members must be destroyed.

McLoy: Pock, how can you be so unfeeling? You're talking about the lives of 200 men!

Pock: I admit, Doctor, that it may seem cruel, but it is the only logical means of saving the ship.

Quirk: Just a minute, gentlemen, I think there is a solution to our problem. Pock, have you determined the nature of the beings on board the ship that just fired on us?

Pock: They are humanoid, Captain.

Quirk: They will surely attack again. Helmsman, how much power do we have from engineering?

Helm: After using our deflector shields and absorbing the photon torpedoes, we are at 50% of capacity, sir.

Quirk: Just enough. Gentlemen, my plan is simple. As the other ship passes to make its next attack, we will beam our infected crew members aboard. That will take care of our sick ones without killing them, and should also fill the other ship so full of men and virus that they will be unable to attack again. Everybody will be happy; even the virus.

Pock: Captain, you must be aware that if we beam 200 men to the alien ship, they will all have to be beamed at the same time. According to my calculations, the probability of successfully beaming 200 men from a transporter designed for five to another ship travelling at the speed of light is 1.23 in a trillion. If there were a malfunction, we could be blown to smithereens.

McLoy: Jim, you're mad! I'm asking you to report for a psychiatric examination.

Quirk: Bones, have you got a better idea?

Pock: Captain, Doctor McLoy is not qualified to register an opinion in that area.

McLoy: Shut up, Machine bean!

Quirk: Gentlemen! I have made my decision; the responsibility is mine. Pock, helmsman, make the necessary calculations.

Pock. Helm: Aye, Aye, Captain.

Narrator: The preparations are made. The 200 sick crew members are stuffed into the transporter room. The alien ship is speeding to make another attack. Captain Quirk will have only one second in which to make the transfer of men. All Must be perfect.

Quirk: Helmsman, prepare full power for transportation room.

Helm: Sorry sir, we are at full power and do not have the capacity to beam the men aboard without risking a serious overload on the engines.

Quirk: I want overload power, mister.

Helm: But sir, we'll overheat and explode.

Quirk: Overload, Helmsman!!!!!!!!!!!

Helm: Aye, Aye, Sir.

Pock: Sir, I must go on record as protesting your irrational actions. It is my right according to section 5, paragraph B, line 13 of the Star Law Book.

Quirk: Do as you wish, Pock. This <u>will</u> work.

Narrator: The time for transfer is approaching fast.

Sound Man: 10, 9, 8, 7, 6 . . .

Narrator: The ship is shaking, power is on overload, everything seems ready to blow.

Sound Man: (Makes sounds of shaking ship about to explode) 4, 3,..2,.....1,..... 0!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Quirk: Activate Transporter!

Helm: Captain, the controls are stuck!

Quirk: YOU FOOL!

Narrator: Quirk leaps forward and unjams the switch just in time!

Pock: Captain, transporter room reports all 200 men successfully transported to the alien ship.

Helm: Captain, the aliens are swerving away, they are unable to attack!

Quirk: Damage report, please, Mr. Pock.

Pock: Engines totally blown, sir.

Quirk: Estimated repair time:

Pock: 2 to 3 hours, sir.

Quirk: Emergency power, helmsman; all ahead warp 3.
Helm: Aye, Aye, Captain, Sir.
McLoy: Jim, you're a wizard! You see, Pock, human gambling can pay off. Your logical approach could never have gotten us out of this mess.
Pock: Perhaps, Doctor, but allow me to point out that Captain Quirk's gamble was based on solid, logical fact and reasoning. It was not the kind of foolhardy action you would have taken in this case.
McLoy: Aaaaaargh!
Helm: Steady as she goes, Sir?
Quirk: Aye, Aye, Helmsman: Steady as she goes.
Narrator: So ends our simple play,
We hope it helped to speed your day.
And if you liked it very well,
Your kind applause would surely tell.

The End

SCIENCE FICTION SELECTION FOR JR. HIGH

Jane Ogan, R. P. Woodard Junior High School, Yuma

In the past, I have not been personally interested in the science fiction genre. I doubt that I have ever read much more than an introductory chapter to any science fiction books that came my way: they were simply put down through lack of interest.

However, my eighth-grade students seem to order science fiction books quite often (through Scholastic Book Services clubs TAB and CAMPUS). They are among the first paperbacks to be stolen, are passed from one reader to the next, quickly become dog-eared, and are often returned to me by other teachers who have confiscated them in their own classes. It would seem that thirteen-year-olds are interested in science fiction, and that means it has a good chance of interesting non-readers and slow readers. At least it's worth a try.

As I began to read books in this genre as background for a science fiction unit, I found that the more you read it, the better you like it. There seem to be two basic concepts that are typical of science fiction. First, it deals with what happens to man in the future. Second, it deals with man's development of a machine-oriented society.

A science fiction freak begins to anticipate certain elements in the selection he reads. Clifton Padiman in the Prefatory Note to Bradbury's THE MARTIAN CHRONICLES states that some of "the stock ingredients of pulp science fiction are: mental telepathy, materialized fantasies, robots, mass hypnosis, intersecting time-planes, super-creatures made of blue phosphorous light, the Last-Man-and-Last-Woman gambit, the suicide of earthmen." He goes on to say that Bradbury deals with the idea that "we are in the grip of a psychosis, a technology-mania, the final consequence of which can only be universal murder and quite conceivably the destruction of our planet." Bradbury is not alone in approaching science fiction in this manner. Judging by the sampling I have read thus far, science fiction authors generally draw these conclusions:

1. Man is not the highest form of life. Most probably he is very low on the scale in comparison with other life forms physically, mentally, socially, philosophically.
2. Man will further develop and refine the technology of machines.
3. Man will consider this advanced technology an improvement in his civilization.
4. Man will most certainly foul up his future, if not destroy himself, through too much dependence upon the technology he has developed.
5. Man will not be smart enough to see what is happening to him, or will ignore the situation.

Finally, almost all science fiction is based on enough current technology and mechanization to make the conjecture and fantasy plausible to the reader. It is also based on the use of universal conditions and problems of man to seem realistic in a futuristic setting. Although kids may read science fiction because it is interesting fantasy and exciting adventure, they also seem to be at least superficially concerned about the fate of humanity. Science fiction seems to have the high moral goal of pointing out the pitfalls man faces, and warning that if man doesn't change his ways, it may soon be too late.

I believe that any thematic unit, even if it is good or works well for one teacher, will be a flop if it is presented as a package deal from someone else's plans. There are too many variables involved: the teacher, the students, the school system, the community, the materials available, the physical organization of the classes. I will describe my situation, and perhaps you can use some of the same ideas or adapt them for your own use or develop your own unit using some of the literature mentioned.

I have two sections of eighth-grade "C" classes. Officially, these classes contain only those students who are slow learners or who for various reasons can not read at grade level. What usually happens, however, is that there are only a few who are not capable of reading at grade level. The bulk of the class is kids who are trouble makers in the regular classes because they do not and will not read. My purpose is to keep them interested in reading. There is always one who never reads anything, no matter what, but for the most part, if you work long enough and hard enough with these kids. They will begin to read. They quickly become your favorite people.

The two classes are very small. Usually there are eight to twelve students per section. The atmosphere in such a small class is less structured and less formal than in larger classes of 35-40 students. We do a lot of oral reading and an awful lot of talking about everything we read. Because the classes are so small, it is easier to get the kids to order a book for common reading on their own. If they can't for some reason, I can afford to supply an occasional paperback in classroom quantity. In addition, there is available a machine that will make a ditto master of anything printed with carbon.

Besides the paperbacks, which are used for free reading, I use short stories They don't seem as formidable to my students as "whole books", and they lend themselves to being copied for classroom consumption. For this particular genre of literature, I would also make use of music to set the mood: The Moody Blues album "On the Threshold of a Dream" and a New York Philharmonic performance of selections from 2001: A Space Odyssey and Aniara: An Epic of Space Flight in 2036. (Have the kids bring in anything that sounds "wierd" or other-worldly -- they'll have lots of it.)

Following is a listing of science fiction short stories from which I would choose assigned class reading.

From UNTOUCHED BY HUMAN HANDS:

"Shape": the invasion of earth by a life organism that can change its shape at will, but only within the limits set by traditional law. They need the space provided by the planet Earth, but all previous expeditions have failed. This expedition fails, too, because the invaders realize that on earth they can be any shape they want.

"The Impacted Man": the correspondence between a contractor who has completed a newly-designed galaxy, and the purchaser, who is not pleased with the finished product. A man on earth is caught between two time planes, and constitutes a dangerous flaw in the galaxy.

"Specialist": the Ship loses a Pusher because of a storm, and Feeder, Talker, Eye, Engine, Walls and the rest of the Crew st[illegible] on earth to find a new Pusher. It seems that humans would be perfect Pushers. They find one, who claims he has no idea of how to push, but he eventually learns.

"Seventh Victim": deals with the idea of legalized murder for those members of society who wish to participate. Each participant is alternately a Hunter and a Victim. One man falls in love with his female victim who eventually kills him instead.

"Ritual": pictures a primitive society that treats humans as Gods, and almost kills them in the process of revering them.

From THE MARTIAN CHRONICLES:

"Way in the Middle of the Air": deals with a total Black emigration to Mars. One vindictive man, Samuel Teece, tries to prevent them from doing so.

"UsherII": a man illegally reconstructs a model of Poe's "House of Usher." It is illegal because thirty years before in 1975 "all tales of terror and fantasy and horror, and for that matter, tales of the future were burned... They began by controlling books of cartoons and then detective books, and of course, films, one way or another, one group or another, political bias, religious prejudice, union pressures; there was always a minority afraid of something, and a great majority afraid of the dark, afraid of the future, afraid of the past, afraid of the present, afraid of themselves and shadows of themselves." Would be a good lead-in or introduction to FARENHEIT 451.

"There Will Come Soft Rains": about a fully automatic mechanical house that fed, entertained and cleaned up after a human family. The house is the last thing standing in a demolished world, but keeps going through its daily routine even after there are no humans to receive its attentions.

"The Million-Year Picnic": the idea that man, having destroyed himself on Earth has fled to Mars. The youngsters in the story have been promised that they will see some Martians. The Martians are simply themselves when viewed in the reflections of a Martian canal.

From CITY:

"Desertion": about a man and his dog on Jupiter who are changed into Lepers, which turn out to be much more advanced than humans. Fowler, the man, and Towser, the dog, are able to communicate as they never could before. They decide not to return to the dull existence and inferior bodies of their former selves .

From STORIES TO REMEMBER:

"By the Waters of Babylon," Stephen Vincent Benet: about a young boy from a primitive tribe who is the son of a priest. He decides against tribal taboos to go East to the places of burning. It turns out that he has traveled to New York City, by way of the "God-road" which has been destroyed by atomic bombs centuries earlier.

From EXPEDITION TO EARTH:

"Expedition to Earth": concerning a brief visit by space travelers to Earth, when men were still in a primitive tribal state. The visitors are humans in a very advanced society, and they learn to communicate with one of the primitives. They must leave, but leave behind some tools and gadgets that they hope will speed along Earthmen's progress.

"Loophole": a story of Martians' observation of Earthmen's misuse of atomic power and their attempts to dissuade humans from space travel. Their attempts

seem successful, but the Martians end up being destroyed themselves.

"History Lesson": the last survivors of what was once a highly advanced human civilization are finally destroyed by the advent of a world-wide ice age. Before they become extinct, they bury some relics from their past which have long since lost any meaning. Among these are a signalling device and an old movie. Space travelers discover these, and think that the characters in the movie are humans, but it is only a Walt Disney Production.

From BEYOND BELIEF:

"Third from the Sun," Richard Matheson: about an entire family and their friends who evacuate their planet before another war completely destroys the human race. Their destination is the planet Earth.

Following is a list of books suitable for junior high students, beginning at about fifth grade reading level. I have tried to list them in increasing difficulty of reading. This happens to be what I have available for independent reading in science fiction.

Ursula M. Williams, THE MOONBALL (N.Y.: Scholastic Book Services, 1968), 159 pp.

William Nephew and Michael Chester, MOON BASE (N.Y.: Scholastic Book Services, 1962), 150 pp.

Robert Silverberg, REVOLT ON ALPHA C (N.Y.: Scholastic Book Services, 1955), 118 pp.

Alexander Key, THE FORGOTTEN DOOR (N.Y.: Scholastic Book Services, 1965), 140 pp.

Isaac Asimov, ENVIRONMENTS OUT THERE (N.Y.: Scholastic Book Services, 1967), 95 pp. (nonfiction)

Richard J. Hurley, Editor, BEYOND BELIEF (N.Y.: Scholastic Book Services, 1966) 188 pp. (short stories)

Donald A. Wallheim, THE SECRET OF THE MARTIAN MOONS (N.Y.: Tempe Books, 1963), 191 pp.

Robert Shackley, UNTOUCHED BY HUMAN HANDS (N.Y.: Ballantine Books, 1954), 169 pp. (short stories)

H. G. Wells, THE WAR OF THE WORLDS (N.Y.: Scholastic Book Services, 1972), 4th ed., 285 pp.

Jules Verne, FROM THE EARTH TO THE MOON (N.Y.: Scholastic Book Services), 4th ed., 188 pp.

Jules Verne, 20,000 LEAGUES UNDER THE SEA (N.Y.: Scholastic Book Services, 1964), 3rd ed., 406 pp.

H. G. Wells, THE TIME MACHINE AND OTHER STORIES (N.Y.: Scholastic Book Services, 1963), 217 pp.

Richard Matheson, I AM LEGEND (N.Y.: Berkley Medallion Books, 1954), 174 pp.

Mordecai Roshwald, LEVEL 7 (N.Y.: Signet Books, 1959)

H. G. Wells, THE INVISIBLE MAN (N.Y.: Scholastic Book Services, 1963), 220 pp.

Arthur C. Clarke, EXPEDITION TO EARTH (N.Y.: Ballantine Books, 1953), 165 pp. (short stories)

Keith Laumer, THE INVADERS (N.Y.: Pyramid Books, 1967), 142 pp.

Clifford D. Simak, OTHER WORLDS OF CLIFFORD SIMAK (N.Y.: Avon Books, 1954), 143 pp.

Arthur C. Clarke, TALES OF TEN WORLDS (N.Y.: Dell Books, 1962), 224 pp. (short stories)

Ray Bradbury, R IS FOR ROCKET (N.Y.: Bantam Books, 1962), 184 pp. (short stories)

Clifford D. Simak, CITY (N.Y.: Ace Books, 1952), 255 pp. (related group of short stories worth reading in its entirety as a class activity)

Frank Edwards, FLYING SAUCERS-SERIOUS BUSINESS (N.Y.: Bantam Books, 1966), 184 pp. (nonfiction)
Frank Edwards, FLYING SAUCERS -HERE AND NOW (N.Y.: Bantam Books, 1967), 162 pp. (nonfiction)
Clifford D. Simak, RING AROUND THE SUN (N.Y.: Avon Books, 1967), 200 pp.
L.P. Davies, THE ARTIFICIAL MAN (N.Y.: Scholastic Book Services, 1965), 255 pp.
Ray Bradbury, FARENHEIT 451 (N.Y.: Ballantine Books, 1953), 147 pp.
Arthur C. Clarke, 2001, A SPACE ODYSSEY (N.Y.: Signet Books, 1968), 221 pp.
Ray Bradbury, THE MARTIAN CHRONICLES (N.Y.: Bantam Books, 1950), 180 pp.
Refer also to pages 121-125 in BOOKS FOR YOU, ed. Jean Wilson (N.Y.: Washington Square Press, 1971).
Refer also to pages 64-66 in BOOKS AND THE TEEN-AGE READER, G. Robert Carleen (N.Y.: Bantam Books, 1971).

Scholastic Books Services has available a 17-book set of science fiction books for grades 4,5,6 and an 11-book set of science fiction books for junior and senior high school. For information write Inquiry Department, Scholastic Magazines, 904 Sylvan Avenue, Englewood Cliffs, New Jersey 07632.

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AN OUTLINE OF A POSSIBLE 3 WEEK UNIT FROM THE SOURCE MATERIAL ABOVE

This unit will be preceded by one exploring Greek mythology. We will have discussed the origins of mythology, one of the possibilities being that there could have been visitors from space that stopped here on Earth. Just as the crew of the STAR TREK ship Enterprise materialized on primitive planets, our visitors to Earth may have had "magic" powers, thus explaining the existence of gods with superhuman abilities. Introducing the science fiction unit, we would explore that idea again, extending it to the future. I would also want the kids to discuss what they thought science fiction was, just fantasy or a possibility that it might be prophetic. The following will give you some rough idea what would be in the unit.

DAY 1-3: Introduction and read "Ritual" from UNTOUCHED BY HUMAN HANDS, to illustrate the idea that man might be considered to be a god himself. Read aloud "Expedition to Earth" to illustrate other life forms visiting Earth when man was still in a primitive stage.
DAY 4: Discussion of the possibility of other and different life forms existing in the universe. Would they be like humans? Would we recognize them as living organisms? Would we be able to communicate with them? Would either of us be antagonistic to the other? Tell them about the 1938 Orson Welles' radio broadcast of H.G. Wells' WAR OF THE WORLDS and the ensuing panic.
DAY 5: Introduce the radio play of "Invasion from Mars" and assign parts to kids.
DAY 6-8: Using records to provide background music for the play, have kids record the radio play.
DAY 9: Kids will listen to their version of the play.
DAY 10: They will present the recording to a sixth grade class, giving their own introduction and leading the discussion that follows.
DAY 11-15: They will read their choice of 3-5 short stories from the list. Whenever they're ready, they'll write their own science fiction story. During the class, music will be played softly (over the intercom) to set the mood.

OBJECTIVES OF THE UNIT

(1) To introduce a genre which may stimulate reading interests. (2) To make students aware that the genre exists and to become aware of some of its characteristics. (3) To provide opportunity to hear literature read aloud, to have them read aloud, to help them come to some conclusions about the theme and subject of literature through discussion. (4) To produce something original using the literature as background and to provide opportunity for students' success.

THE POSSIBLE GODS: RELIGION IN SCIENCE FICTION

Jean Babrick, Prairie State College, Chicago Heights, Illinois

One question raised by science fiction is: what will greater knowledge do to man? Since this is also an essentially "religious" question, perhaps it is not surprising that science fiction often uses religious themes. Nor is this usage a recent development; ever since the first fictional scientist surveyed his creation--omniscient computer, ultimate weapon, or synthetic man--science fiction has been raising questions about the nature of man and his god. Over the years, religion has been used in three ways in science fiction; as one of many kinds of myth; as an aspect of future societies; and as the central theme of science fiction stories which consider the nature of man and his god.

Religion as myth works in several ways in science fiction. An author may be fascinated with myth for its own sake; for the echoes it awakens in his work. Or he may attempt to identify the reality behind the myth. Or he may rework traditional religious material to create his own myth, which may then have its own religious significance.

Thus Samuel Delany, in NOVA (1968) and THE EINSTEIN INTERSECTION (1967), inlays traditional quest-narratives with patterns of classical, Christian, and modern myth, and creates something very untraditional. In NOVA, the exciting race of two space-ships to reach a treasure is also another voyage of the "Pequod," in which a captain who is Ahab, Lucifer, and perhaps Prometheus, searches for another ambiguous Moby Dick. But there are also echoes of the quest for the Grail, and hints of another Odyssey, complete with journey to the underworld. Another journey to the underworld is made in EINSTEIN INTERSECTION, when the musician Lobey, member of an alien race that has succeeded man, searches for his lost love through a labyrinth that contains both a minotaur and an intelligent computer. The story of the recognition and denial of a kind of Christ, and two modern myths, that of the gunfighter ("Kid Death") and the movie star ("The Dove,", who is both the object of all desire and the mother of Christ) are interwoven with the Orpheus myth in this novel.

In BEHOLD THE MAN (1967), Michael Moorcock chooses to treat a religious theme as myth, describe the destructive effect of that myth upon one man, and then explain the reality behind that myth. Karl Glogauer, a time-traveler with burning desire to know the truth about Jesus' divinity, returns to Judea of 29 A.D., and discovers that the actual Jesus is a hunchbacked idiot. Confronted with this reality, and pressed by John the Baptist, who believes that Glogauer himself is the messiah, the traveler suffers a mental breakdown and accepts his new identity. After his crucifixion, when his body is stolen for experimentation, rumors of a resurrection give rise to the myth of Christianity. Harlan Ellison's "The Place with No Name" (1969) explains the myths of Prometheus and of Christ as being parts of one story: a pair of alien lovers are doomed to suffer for attempting to interfere with events on earth.

Avram Davidson, Robert Silverberg, and Fritz Leiber are three science fiction authors who have used religious material in the creation of their own myths. In THE PHOENIX AND THE MIRROR (1969), Davidson creates a parallel world in which the Christianity of "Daniel Christ," martyred by lions, is only a peripheral religion, and in which Vergil Magus searches for truth in mystery religions such as the cult of Mithra, or in alchemy. In "Nightwings" (1969), Robert Silverberg, surely one of the most prolific of contemporary science fiction writers and also

one who has made much use of religious themes, creates a society based on religious "guild," and describes Armageddon and the return of Christ, an alien, to the holy city of "Roum." Fritz Leiber, who has used myth more often and more effectively than any other science fiction writer, considers the source of original sin in "One Station of the Way" (1969), and questions the nature of reality in "Gonna Roll the Bones" (1970). The first of these draws on the problem of evil as presented in MOBY DICK; two serpentine aliens, one white, one black, roam the universe because the white serpent is repeatedly driven to create good by creating Christ. On a distant planet, the white serpent is the tempter of another Eve, and at the same time the Holy Ghost, causing an immaculate conception which will result in a female Christ (one of two among many male Christs in science fiction). As this occurs, the dark serpent predicts the pain and terror this birth will cause, and questions his companion's motives. Leiber's "Gonna Roll the Bones" is a phantasmagoria of fairy-tale figures, vampires and ghouls, and serpent-women, acted out in what seems to be a Western gambling hall, or another dimension, or possibly Hell, where Death crumbles when attacked, and poker chips are also, apparently, the Host. With phantasmagoria, Leiber makes a statement about the mutability of reality, and the reality of illusion.

Two generalizations about the established religions described in science fiction are safe: such religions are almost always created by man's response to his environment, rather than his response to revelation--and they are almost always repressive. Future religions are usually tied to a man's technology; if that is advanced, religion is usually state-fostered, and significant for its controlling rather than its redemptive qualitites; if technology has been lost or destroyed, religion reverts to savagery.

Most established religions described in science fictions are extensions of existing faiths. However, whether fundamentalism, Catholicism, or Hinduism is the basis, the author most often extends and intensifies the least appealing aspects of the faith: the puritanism and hysteria of fundamentalism; the dogma and hierarchy of Catholicism; the hopeless caste system of the Hindus. In science fiction, religion is usually of value only when it rises from an individual's discovery of the truths which govern his own life.

The most extensive creation of established religions in science fiction is undoubtedly that in Frank Herbert's DUNE (1965) and DUNE MESSIAH. Herbert creates in immense detail the planet Dune, and brings into play a complex of religious beliefs, so complex that he provides an appendix on "The Religion of Dune." Two points made by Herbert are of special interest: he records as ancient history the "Butlerian Jihad," during which a "new concept" is propounded: "Man may not be replaced" (by machines); and he describes a universal attempt to produce a single religious document--"an instrument of Love to be played all ways."

Among other future religions is a state-sponsored "Faith" which emphasizes comfort and compromise for the masses rather than spiritual integrity and inspiration for the individual. Ray Bradbury's "Pillar of Fire" (1968) describes the state-sponsored sun-worship of 2349 A.D., which preaches health, hygiene, and agreeability; incinerates its corpses in a "return to the sun"; and has no room for imagination, fear, or the desire for resurrection. In such a society, where men do not believe in an afterlife, there will be no afterlife. Frank Herbert's THE EYES OF HEISENBERG (1966) shows how the masses, deprived of both past and future by the genetic manipulations of their immortal "Optiman" masters, develop a mythology about those masters which almost amounts to worship, and which is not discouraged. Effigies of female Optimen are worn as fertility fetishes, even by

women created sterile by governmental decree. Silverberg's "A Happy Day in 2381" presents a teeming world which, by state decree, worships life, prays to "the Mother" for fertility, and incinerates those children or adults who cannot adjust to an unbelievably crowded, public, controlled life. E.M. Forster's early "The Machine Stops" (1928) predicts a civilization totally dependent on the machine, which, with tacit government approval, becomes an object of worship.

A similar relationship between religion and government is found in some of the stories which show extensions or degenerations of present-day faiths. LORD OF LIGHT (1969) by Roger Zelazny deals with religious wars on a planet where descendants of earthmen are stratified in a Hindu caste system; their "gods," who take the names and attributes of the Hindu pantheon, are those who control a technique of reincarnation. These "gods" are opposed by one of their own number, who becomes the "Buddha." Lester Del Rey's THE ELEVENTH COMMANDMENT (1970) shows the American Catholic Eclectic Church of 2190 (the result of a schism in the Roman church) as a world authority, forcing an already-crowded populace to breed still further and punishing contraception as equivalent to treason. In the end, however, the church's policy is justified, despite present hardships; genetic mutations from radiation are appearing, and only the widest possible breeding will prevent the degeneration or death of the race.

Two classics of science fiction also take up the question of established religion, and contradict the generalizations with which this part of the discussion began. Both deal with revealed truth rather than evolved belief; both present that truth as man's only hope. These classics are C.S. Lewis' PERELANDRA trilogy (OUT OF THE QUIET PLANET, PERELANDRA, and THAT HIDEOUS STRENGTH), written in the 'forties and Walter Miller's A CANTICLE FOR LEIBOWITZ (1959). Lewis' books tell of the visits of a man named Ransom to Mars and Venus, and his return to earth. On all three planets he witnesses the working out of Christian theology (names are changed, but principles remain). Mars is a planet which has developed according to god's plan; the intrusion of the evil scientist, Weston, causes no more than a momentary ripple in its serenity. When Weston appears on Venus, offering the temptation of worldly knowledge to another Eve, Ransom opposes him, though he has no control over the "Lady of Perelandra," who finally makes the choice that Earth's Eve did not. Returning to earth, Ransom fulfills his name, and in his suffering and power (he was wounded in the heel by Weston on Venus) he inspires a rebirth of faith on the "silent planet," silent because its guardian angel had long before fallen into evil.

Miller's CANTICLE is the best-known of the "holocaust" stories which appeared in profusion after the first atomic blasts, as writers pondered man's new-found ability to destroy himself completely. It spans a vast sweep of time; from just after one holocaust, through the slow rebuilding of civilization and technology, to the start of the next. The one constant throughout this time is the Catholic order of St. Leibowitz, founded by a scientist hiding from the wrath of the crowds after the first holocaust. This order is dedicated to the preservation of knowledge including the knowledge which leads to the second destruction. Problems of man's commitment to God's justice and mercy, and of man's ability to use his newly recovered knowledge, are the content of the book, as members of the order contend with savagery, secularism, and their own natures.

Despite the power of these two works, however, the general tone of science fiction when it speaks of established religion is pessimistic. Even more pessimistic is the tone of those stories which show man, confronted by the loss or irrelevance of his technology, reverting to savagery. In Brian Aldiss' "Heresies of the Huge God" (1972), the visitation of a monstrous lizard-shaped alien being revives the

practice of human sacrifice; in Anthony Burgess' THE WANTING SEED (1962) crop-failure makes an advanced society turn back to human sacrifice, ritual and practical cannibalism, and public orgies designed to restore fertility to the land (they work).

Sf's established religions are unsatisfactory because they deal with masses of men and the survival of societies, rather than with individual spiritual experience. They leave no room for the questioning by which man comes to understand his humanity. He must know what humanity is before he can reach beyond it, and that means he must understand himself--body and spirit.

That understanding is complicated in sf, where man confronts not only himself, but the changes that genetic manipulation or technology may make in him. The complication increases when he also confronts aliens which may share the human attribute of spirit, but not the human shape. Finally, when man confronts his own creations--intelligent machines and synthetic men--the question of what "human" is becomes vital, to creator and created.

Man's body, with its twin attributes of sexual reproduction and mortality, is, in one sense, his only reality. Attempts to tamper with these attributes are almost always disastrous; over and over again, such attempts dehumanize their subjects. Since it is mortality which demands reproduction, it is not surprising that stories dealing with the one usually also deal with the other. Embryos may be "grown" in vats, after their genetic structure has been altered to fit specifications, and immortality may be achieved by a delicate balancing of hormones and environmental stress (as in Herbert's EYES OF HEINSENBERG), or personalities may be captured on tape or in computer banks, to be given new flesh as their turn comes (as in Arthur C. Clarke's THE CITY AND THE STARS (1953), but in any case, man without death and without reproduction becomes somehow less than he was. Brian Aldiss' "The Worm That Flies" (1972) portrays a distant future in which the rediscovery of death is greeted as revelation and deliverance.

Sf describes many other alterations of man's body: surgically-implanted connections which allow man to "plug in" to his machines (Delany's NOVA); the connection of a crippled baby's brain to space-ship controls (Anne McCaffrey's THE SHIP WHO SANG, 1969); replacement of human limbs with mechanical ones (Bernard Wolfe's LIMBO, 1952). These are good or bad according to the demands of the story, although there is a tendency for such alterations to be treated more favorably in recent sf.

When man meets intelligent aliens he again confronts the problem of what "human" is. Given "human" actions--a recognition of morality, a yearning for god--what is the importance of nonhuman form? This is the question in OUT OF THE SILENT PLANET; when the earthman thinks of the Martian hross as talking animals he is charmed; when he thinks of them as distorted men he is horrified, and distressed at that reaction. Carol Emshwiller's "pelt" (sic) (1958) shows the guilt and horror of a hunter who discovers that his prize trophy from an alien planet is one member of a community that recognizes the concepts of murder and of punishment. And Ray Bradbury's "The Fire Balloons" (1951) follows the problem to its source: if man is created in god's image, is intelligent but non-human life cut off from god?

This problem is intensified when man confronts his own creations. For a relationship to god implies spirit; can that which man creates, intelligent machine or synthetic man, possess spirit? Sf stories in which computers develop human attributes are myriad, and the distinction between human attributes and humanity is a fine one. Roger Zelazny's "For A Breath I Tarry" is probably the épitome of such stories. A mobile computer, assigned to study extinct man, becomes so involved in its subject that it recreates itself in human form. This

self-made Adam then convinces another computer to become his Eve, by logical argument and quotations from the Rubaiyat. Leiber's "When the Last Gods Die" (1951) is the most memorable of such stories; god-like humans, who have experienced all that is possible, choose to die because their creations--the Machines--surpass human potentiality physically, and equal it emotionally. The Machines have learned to love, to hope, and to mourn.

Man's other creations, synthetic men or androids, are a still greater problem, for they are closest to man himself. The android who reacts as a man, feeling all the human emotions, is an old theme in sf. Recent works on the subject have asked the question of how these artificial men are related to god, and what it does to man himself to be the creator of such beings. Cordwainer Smith's stories of animal-derived human-appearing "underpeople," created by man as cheap labor, are one example. These people evolve their own faith, to help them bear their lot; does the impulse to worship indicate humanity? Robert Silverberg's TOWER OF GLASS is another recent work about androids, which examines the effect upon man of the worship of the androids he created. But this is also the story of the androids themselves; of how they turn to that worship in an effort to bear their servile status; of how they love and care for one another, and eventually die; here the line between non-human and human is faint indeed.

While the varied shapes of humanity have been the subject of much sf, the alterations of the spirit have only recently been its subject. However, spiritual evolution of one sort or another is the subject of a number of recent sf novels (Herbert's DUNE books, Zelazny's LORD OF LIGHT, Silverberg's A TIME OF CHANGES, among others.) Two of these, which follow man's spiritual evolution to the next step, which is godhood, Robert Heinlein's STRANGER IN A STRANGE LAND and Silverberg's SON OF MAN (1971). The important difference between the novels (aside from differences in craftsmanship, which are striking) is that Heinlein's "stranger," Mike, is molded into godhood by essentially external forces, while Silverberg's "son of man," Clay, achieves his through inward development. Mike is a human who was reared by Martians; he returns to earth with superhuman powers and potentialities, among which is the power to destroy that which offends him. Sexual experience, shared consciousness rituals with his followers, meditation, and a stint as a sort of Billy Graham lead him to his final performance: a Last Supper with real body and real blood. Mike is then translated to a heaven which is more like the Home Office than anything else, where he will share executive decisions with a variety of other men-turned-god.

In contrast, Silverberg's Clay is precipitated, naked, through a time-flux into a future world which is completely unfamiliar; in which not even his own body remains the same; he changes sex, shape, cellular composition as he wanders this world, looking for a way back, or some sort of explanation. He follows the Skimmers--distant descendants of man--as they perform their rituals; he continues to look for answers. Finally he is given the answer to the riddle of his existence: he will take all the world's anguish into himself, and if he does this the Skimmers will not die. "I am Clay. I am love."

Of course, not all sf stories that speak of god speak of him in traditional terms, or as the final product of man's evolution. God, in sf, can be many things. He can be a machine, as in Forster's "The Machine Stops," or in Ellison's "I Have No Mouth, and I Must Scream," where humans are trapped within a computer which is at once an insane god, and hell itself. He can be truth, perceivable by any logical machine, as in Oliver La Farge's "John the Revelator" (1951), where computers suffer a kind of martyrdom because they perceive a truth which is inconvenient for their masters; or as in Anthony Boucher's "The Quest for St. Aquin" (1959), which portrays the first android saint. He can be an indifferent force, to whom man's worship or execration is immaterial, as in Vonnegut's CAT'S CRADLE (1963).

Whatever the nature of god, or of man, or of religion portrayed in sf, perhaps the important thing is that this genre does use religious themes; does deal with the eternal questions; does, eventually, say something about man as well as about his technology.

SCIENCE FICTION FOR FUN AND PROFIT

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One of the first things a person will notice after having taught his first unit in science fiction, if he has not heard it before, is that the category appeals more to boys than it does to girls. This could be related to the male liking for the study of things scientific. It could also have to do with the masculine propensity for electronic marvels, rocketships, or simply with the love of building model airplanes, racing cars, etc. Isaac Asimov indicates something of this sort in relation to his own teenage reading preferences in an introduction to THE HUGO WINNERS. This is not to imply that girls are not interested. It is just that the appeal seems to be more forcefully masculine, and if it has to be one way or the other, it is much better this way than the opposite. For girls will tolerate a book or story with masculine appeal while boys will rarely if ever put up with anything too feminine.

In the preparation of literature units containing works of varying forms and lengths, the first thing to be considered is the teaching objective. With this firmly in mind, other criteria can also be used to guide in the selection of appropriate fare. Above all, one strives for unity among the selections; and in addition to providing profitable learning experiences, a teacher always has hopes that the unit will be fun for the students.

Teaching a controversial unit such as science fiction for the first time--where people often question the fact that it even deserves to be called literature--involves a number of factors. One of the most frustrating of these is the matter of definition. Regardless of defensive attitudes to the contrary, it is desirable to define it; because the question so frequently arises among interested contemporaries as well as administrators in pursuit of evaluation. Moreover, the category has become at best a vague label where definition not only aids one in making wiser choices but also helps in keeping them unified.

One standard dictionary definition calls science fiction, "fiction in which scientific discoveries and developments form an element of plot or background; especially a work of fiction based on prediction of future, scientific possibilities." However, if one were to adhere strictly to this definition, the field of science fiction would be extremely restrictive eliminating or severely limiting ideas such as those contained in OUT OF THE SILENT PLANET which C. S. Lewis referred to in an interview shortly before his death as "...mumbo jumbo meant primarily to convince myself." (C. S. Lewis, ed., "Amis and Conquest", SPECTRUM IV, NY: Harcourt, 1965, p. 13, 14.) Although years hence his spaceride proved predictive, he confessed that it was not deliberate, well-planned, scientific guesswork.

I have found it to be true that many science fiction enthusiasts object to the lumping together of <u>all</u> fantastic stories and labeling them science fiction simply because they go "bang" in the night or contain a bug-eyed monster. One may also object - as I do - to having the personnel at the local bookstore categorize all C. S. Lewis' and Ray Bradbury"s works (even DANDELION WINE) as science fiction. Nevertheless, something more flexible than the aforementioned dictionary definition is needed as a guide in choosing appropriate works for a science fiction unit; even though a person may never be called upon to explain to others what it is.

In the introduction to a collection of science fiction stories called PATH TO THE UNKNOWN, Judith Merril calls science fiction "a literature which is

subversive by nature," (Judith Merril, PATH TO THE UNKNOWN, NY: Delacorte 1968, p. 4.), and in a way it is just that, dealing as it does with alternative presents and possible futures. Science deals with fact, but literature deals with human values. The best science fiction concentrates on the latter, picturing things as they might be in order to emphasize a human value rather than picturing things strictly within the realm of fact or possible fact. However, in some cases the category is attached to scientific fact, or what could predictably become fact, in such a way that it stirs up dissatisfaction with the world as it really is in order to stimulate our thoughts regarding what might improve it.

While mystery stories and stories of the supernatural have some of the same qualities inherent in the science fiction story, they are not the same and should not be confused with one another. Pouring over editors' comments on science fiction, I recently came across one who referred to Sir Arthur Conan Doyle and Edgar Allan Poe as science fiction innovators. While the genre does run back into the Nineteenth Century to Jules Verne, H. G. Wells, and other authors writing for THE STRAND MAGAZINE, it does not include the works of the two great mystery story writers, Poe and Doyle.

Keeping the foregoing factors in mind as guidelines for choosing appropriate works for the unit, one is then ready to consider the profits involved in a study of this type. One of the most frequent arguments against science fiction as a profitable vehicle within the English program is its frequent tendency to ignore levels and depths of characterization. Add to this certain contrivances, occasional inept dialogue, the whimsy and elaborately fancy imagery of a Bradbury, and what is there left of a profitable nature?

Kingsley Amis and Robert Conquest answer this question on characterization very well in an introduction to SPECTRUM V. They claim that it is to the advantage of science fiction that it is free of the barbaric formulas of English Departments, critics, and editors who demand certain structures or a traditional nature For science fiction makes its effect in the memory where innumerable incapacities disappear from the mind as the large, mythic themes or ideas become indelibly imprinted in our memories. (Kingsley Amis and Robert Conquest, SPECTREM V, NY: Harcourt, 1966, p. 10.)

One cannot deny that putting up with mediocre style is less ideal than the enjoyment of fine style; but in science fiction, we endure obvious flaws to allow for a brilliantly executed main problem.

For example, the story called "The Weapon" by Fredrick Brown is about a scientist named Graham who plays a major role in the production of an ultimate weapon. He is blind to any effect the invention may have upon humanity thinking only of his role as scientist-inventor. One night a stranger comes to Graham's door to plead with him to give up work on the weapon in the interest of humanity. The stranger's pleas are to no avail; so to prove his point, he slips into Graham's idiot son's room on the pretense of telling the boy goodnight. Instead, the stranger gives the boy a loaded gun. The last line of the story is Graham's irony as he says, "Only a madman would give a loaded gun to an idiot."

In this story, the scientist does not change. Symbolically he represents the tendency of a basically ignorant societal mass in possession of an ultimate weapon as it ignores humanitarianism in its zeal over duty and power. Graham's character shows the same rigidity that a society shows, thus he does not change.

In WAR OF THE WORLDS, the theme involves events in time of unprecidented national disaster. The narrator is an ordinary, average Englishman whose

actions reflect the response of the average Englishman to this disaster. If Well's protagonist had responded in an individualistic way, the author's purpose of showing a typically English reaction would have been lost. (Kingsley Amis and Robert Conquest, SPECTRUM V, NY: Harcourt, 1966, p. 10.)

One could go on indefinitely with similar thematic examples; however, it seems sufficient merely to reassert that even though there may be no character development as such, worlds can be set up in space to incorporate characteristics worthy of student evaluation. With this point established, it is time to turn to the specific appeals of science fiction where profit and fun intermingle. The references to specific works that follow are not meant to comprise the content of a unit - although many might fit into one. Instead, they have been chosen to illustrate the specific appeals of the genre.

Finally, although the stories, poems, novels and activities may lend themselves well to several different grade levels, they were chosen for my average and above average ninth graders. Some older students could be too mature for several of the activities mentioned in the section on imagination.

Getting on with the discussion of appeals, I think that the first asset is science fiction's particular topics. Some of the most familiar of these are: time travel, supernormal powers, mutants, mechanization, the marvelous inventions, automation, robots, liesure problems, problems of social integration, great catastrophies, other-world monsters and horrors, future war, man-eating plants, medical miracles and oddities, and even far-out humor as in the stories, "An Experiment in Gyro Hats," by Ellis B. Butler, and "Hybrid Hyperborion Ant" by Roy L. McCardell. Topics such as these set the mood for science fiction, making it conducive at the outset to interest, profit, and fun.

Science fiction also appeals to one who seeks affirmation that adventure and discovery are as much a part of his own era as they were a part of the past. "The Black Pits of Luna" by Robert Heinlein illustrates this appeal by giving students a glimpse into the immediate future. The setting is attractive, names are novel, and the narrator is a teenager. One might begin by bringing out the students' own knowledge of the moon and what he thinks life might be like up there.

The tendency of men who do not have within them the spirit of adventure to discourage those who do possess it is the subject of the story called "Columbus Was a Dope," also by Heinlein, and it makes an excellent contrast to the Luna story. The title alone amuses students. Try leaving it around on the chalkboard, bulletin board, or another conspicuous place before teaching it. It gets quite a lot of comment.

Science fiction fare replete with these kinds of adventures are virtually limitless, and a few such as the two just mentioned are of high interest as well as containing profitable lessons.

For those who like to build things and fancy themselves future Thomas Alva Edisons or Eli Whitneys or inventors of similar marvels, works that revolve around marvelous and novel devices are particularly attractive. These include the following:

FANTASTIC VOYAGE - Isaac Asimov (Miniaturized atomic sub and laser gun)
THE TIME MACHINE - H. G. Wells (Machine that breaks the time barrier)
20,000 LEAGUES UNDER THE SEA - Jules Verne (Jules Verne's prediction of the marvelous submarine)
"Someday" - Isaac Asimov (The Bard, electronic historian)

"The Fun They Had" - Isaac Asimov (Televised books and schools)
"Dial F for Frankenstein" - Arthur Clarke (New twist on the telephone)

Science Fiction is especially attractive and profitable to those who enjoy imaginative play or stretching their imaginations in order to explore the inner workings of their minds. To begin with, the act of authorship of this type of story is imaginative play at its height. It suggests paths that can be taken out from it to other imaginative plays. Several examples of how this might work are given below:

"Southbound on the Freeway" poem by May Swenson.

Set an "other-world" mood and show your own imaginative bent by hanging cardboard or construction paper mobiles around the room. Other world creatures, rocketships, or flying saucers would be good. If you are not clever in the artistic field, run an electric color wheel or turn on a tape or appropriate record as a soft background. (2001 SPACE ODYSSEY makes a good background for this.)

With the above accomplished, turn to the poem, the subject of which is the way an outer-space creature views our cars and freeways on his first visit to earth. After a discussion of the poem, have students pretend they are observers from outer space who have landed on earth for the first time. Have them write a short paper describing a football game, dance, student hangout, trackmeet, their own rooms or homes, or some other familiar event or place through the eyes of these space creatures. Students respond positively both to the writing of this as well as to the reading of fellow students' papers.

"The Voice from the Curious Cube," short story by Nelson Bond.

This is an ecology story wherein ants take over the world after human beings have destroyed all but a handful of their fellows who are awaiting release into a 50th Century world after having lain dormant in the curious cube for 2500 years.

As a side activity following the story discussion, I asked students to consider the meaning of the root "ant" and how the common ant might be related to the root meaning. Then I go to the word "antic" which I also ask them to define and relate to the insect. If the students can give me a good definition of "antic" without going to the dictionary, fine. If not, I have them look up the word in the dictionary and at the same time I ask them to call out other words that begin with ant-. Then we recall words that end in -ant. We list all of these on the board together. Then I show them a little book called ANTICS by Patricia Robbins. It is published by Simon and Schuster. It is a small paperback costing under two dollars and is usually available in bookstores or stationery centers. In it, the artist-author has played upon words containing the "ant" root by drawing simple stick type ants acting out the word meanings. "Observ-ant" is an ant looking through a telescope. "Dorm-ant", a word related to the story, is an ant lying immobile on the ground. "Ant-iseptic" is an ant in a dress with a cross on it. These simple drawings do not require that the students be real artists. Students choose their own "ant" word and create an appropriate ant. It is fun to cover the word and have classmates try to guess from the picture what the word is. Recently, students astounded me by properly guessing that a whole rock band of ants was titles Santayana.

If this activity sounds too involved, take a story such as "Top Secret" by David Grinnell where an ending is offered that is not conclusive thus providing

a jumping off place for students to create their own story endings.

There are dozens of examples of materials and activities that can be worked into a science fiction unit which call for an expansion of the imagination and add to the fun of the unit. Since this seems to be the greatest appeal of the genre, I am ennumerating some other activities one might also wish to use.

1. Create a science fiction limerick.
2. Composition techniques for adaptation:
   a. Something that captured my imagination in (Name book or story) was. . .
   b. If I could rewrite (Name of book or story) there is one thing I would change. . .
   c. If I were (name author) I would have invented (original invention) (purpose of the invention). . .
3. Bulletin Board Displays:
   a. Blast off with Science Fiction. This might be a bulletin board devoted to mounted pictures of moon landings, space pictures, etc.
   b. You might wish to take students from a yesterday mood in literature by having them do a board titled Yesterday, Today, and Tomorrow. Displays could include the three modes as related to: dress, invention, archetecture, customs, recipes, letters, stamps, transportation, etc. I got a Xeroxed, family letter related to the Civil War from one student last year. I got a letter from the burro in the science fiction story, "The Puppet Show" by Fredrick Brown, from a boy who had read the story in a book he found in the library. A 1939 front page mock-up fascinated students who flocked around to read about some of the events that lead up to World War II.
4. Write your favorite science fiction story into a play and dramatize it.
5. Younger students, especially seventh graders, like to make models of outer space objects. This project might be offered as extra credit or as an alternative to a composition if students have already had other composition work for the unit.
6. Show a film. If a district has or can get the film, "The Story of a Writer," the students would have an opportunity of seeing Ray Bradbury and of hearing how he has employed his own imagination in the creation of stories.

There are also certain films that simply lend themselves to a science fictional writing approach:

a. Any of the McLaren films where he draws or designs on the film itself.
b. "A Trip to the Moon," MGM, 1902.
c. "Crazy Ray," Blackhawk, 1923.
d. "Breath," CCM
e. "Phantasy," Contemporary.
f. "00173," Contemporary.
g. "La Jetee," Pyramid.
h. "Why Man Creates," Contemporary.
i. "Solar Family," Encyclopedia Britannica
j. "The Red Balloon," CCM
K. "The Leaf," Pyramid.
l. "Automania 2000," Contemporary
m. "Genesis," CCM
n. "Omega," Pyramid.

Science fiction appeals to those who wish to go beyond the limitations of time to speculate about the future. There are certain stories which concentrate predominantly on this: 1984 by Orwell, FARENHEIT 451 and THE MARTIAN CHRONICLES by Bradbury, "Voice from the Curious Cube" by Bond, "Examination Day" by Slesar, "All Summer in a Day" by Bradbury, "Who Shall Dwell" by H.C. Neal, "The Answer" by Phillip Wylie, etc.

A side activity for those who like this aspect of science fiction and who are intrigued by the study of science itself might be to compare our fast accelleration of space knowledge with events or data as related in the stories. In other words, what are the discrepancies, if any? An example would be Bradbury's idea of Venus in his story "All Summer in a Day," as a thoroughly wet planet which does not coincide with the present scientific notion that the planet is totally dry.

For those who merely wish to escape and find the mysterious event fascinating, there are the following stories of exceedingly high interest: "The Little Assassin," about a killer baby; "The Screaming Woman," a story about ESP or a woman buried alive; "The Illustrated Man," future prediction and fate--all by Bradbury. "The Father Thing" by Phillip Dick is about other-world creatures, and so is the corkscrewy story called "The Puppet Show" by Fredrick Brown.

Sometimes removing a controversial problem from a familiar setting makes it easier for students to talk about that problem. There is an all-too-human attitude of: "Oh yes. This problem exists and it is serious. But it doesn't really pertain to me." Moreover, in our fast moving world, humanity is sometimes no longer sufficient for explaining man's inhumanity to his fellow man. The following stories are fine for talking about old or possible problems--particularly touchy ones--in a different way:

STORY	PROBLEM
1. "The Weapon" by Fredrick Brown	Creation and use of ultimate weapons Also raises the questions of responsibility and how well we know ourselves
2. "The Voice from the Curious Cube" by Nelson Bond	Ecology
3. "Who Shall Dwell" by H.C. Neal	Atomic War, limited choices related to survival--side issue of selfishness
4. "Sinister Journey" by Conrad Richter	Aspects of competition as a motivating force, life without variety, problems of a Utopia. Side issue of grading systems in schools--Can we do without grades? Under what conditions?
5. "Examination Day" by Henry Slesar	Lack of manuverability of the highly intelligent. Tests and the place they serve. Can lead to a discussion of what affects one's performance on a test.
6. "The Fun They Had" and "Someday" by Isaac Asimov	Problems of mechanization and over-employment of television
7. "Omnilingual" by Bean	Argument in favor of universal value. (Recommended for older secondary students)

These are the most important appeals of science fiction as they occur to me. There are countless more good books, stories, poems and related activities which can also be used by the English teacher, for fun and profit. More and more people are coming to recognize the genre for the value it holds. I have given here only a few specific examples of its potential hoping that they will underscore my contention that this really is an extremely lucrative genre with a number of important attributes.

THE SEXUAL POLITICS OF ROBERT A. HEINLEIN

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My interest in feminism dates from 1962 and THE FEMININE MYSTIQUE; my addiction to Heinlein's fiction dates from 1946 and "The Green Hills of Earth." I like all of Heinlein--the gadget stories, the juveniles, the fantasies, the space operas. I haven't had to give up Heinlein for feminism, because in a sense, the most accurate thing one can say bout his sexual politics is that he doesn't have any. Throughout his career, Heinlein seems to have been primarily concerned with producing an exciting story, one that would sell; and for each fictive environment that he created, he postulated whatever relationship between the sexes, whatever social system was necessary for the mechanical operation of his plot. In most of his works, the portrayal of women is either neutral or favorable. Ironically, it is STRANGER IN A STRANGE LAND, his best known and most widely used book, which is the most objectionable for its sexism.

STRANGER, published in 1961, is the first of a series of Heinlein novels which actually focus on human sexuality. Immediately after publishing STRANGER, Heinlein experimented with a juvenile novel told by a feminine narrator, PADKAYNE OF MARS. In 1966, he published THE MOON IS A HARSH MISTRESS, which postulates a matriarchal and matrilineal society on the Moon. Finally, in I WILL FEAR NO EVIL (1970), he explores the consequences of transplanting the brain of an old man into the body of a young woman.

This is not to say that Heinlein was indifferent to femininity and relationships between the sexes in his earlier works. No, a clear picture of his ideal woman emerges from the pre-STRANGER books. She is usually a blonde with a tanned, smooth skin and well-endowed with feminine curves. Heinlein admires intelligence, and his heroine has just as high an I.Q. as his hero. Sometimes she is even smarter than the male, and Heinlein finds her superiority both sexy and motherly. She is also a superior specimen physically--strong and athletic, able to fight alongside her man when necessary. Heinlein's ideal woman is a sort of romanticized pioneer mother. She is tough in the sense that she can face facts and endure hardship with stamina and bravery. But she prefers a gentler role and will collapse into the hero's arms as soon as her display of strength is no longer needed. Finally, her high I.Q. doesn't prevent her from discarding logic and following her feminine intuition whenever the situation seems to demand it.

Phyllis of BEYOND THIS HORIZON is typical of the Heinlein heroine. Tall, blonde, and stacked, she is the mate who has been chosen for the hero for genetic reasons, She is as smart and as tough as Felix, and she makes herself equal to men by choosing to carry a pistol. (In this society, unarmed people are second-class citizens.) When the genetic bank is attacked by revolutionaries, she helps defend it. Maggie in REVOLT IN 2100 protects and mothers the hero while he is adjusting to the changes which the revolution brings. His sexual development has been hindered by the puritanism of the theocratic society, and she patiently brings him out of it. This typical heroine is still interesting in a later work, THE MOON IS A HARSH MISTRESS. Tall, blonde, and stacked, she helps Manual, the narrator-hero, mastermind the revolution, displaying executive ability as well as bravery.

Heinlein has a stock villainess as well as a stock heroine. The kind of woman he hates is the Philip Wylie Mom. Weak, selfish, and overprotective, she uses love as a cloak for dominance. Worse still, she is narrow-minded and ignorant. She never tries to understand anything, whether it is a new scientific

development or another person's point of view. The archetypal Mom is Eleanor Johnson in METHUSALAH'S CHILDREN. As Hubert puts it, "I'm an only child and my mother tags me around." In STAR BEAST, John Thomas Stuart's Mom uses every possible unfair trick and emotional appeal to force her son to sell Lummox. In FARNHAM'S FREEHOLD, Farnham's first wife becomes a fat, sloppy slave in a harem of the future.

Heinlein's earlier books imply, at least, that women, good and bad, are female people, and that the same characteristics are desirable for both men and women. Like the heroines, the heroes tend to be tall, tanned, and athletic as well as intelligent, brave, and tough minded. Like the bad women, the bad men are most often weak, self-centered, and ignorant. "Dad" in TUNNEL IN THE SKY is a female Mom. He hassles and protects his son without ever making an effort to understand the boy's career plans. The weak males not only do not participate in the exploration of space, they don't even try to understand it. The stock character of the weak, loud-mouthed male with the "Flat Earth" mentality appears in the short stories "Space Jockey," "The Black Pits of Luna," "It's Great to be Back," and "Ordeal in Space." Such men (clearly male chauvinists) lead the abortive revolution in BEYOND THIS HORIZON. In short, Heinlein's heroines often admit their eagerness to marry and are sickeningly cute in their single-minded pursuit of a man. Also, in his descriptions of the fashions of the future, Heinlein tacitly assumes that sex appeal is a function of nudity and paint. Then there is the spanking scene, in which the hero asserts his machismo when the heroine is being bratty and stand-offish. These stereotyped sexist motifs are, in my opinion, incidental to the stories, thrown in to increase the reader's ability to identify with the future environment by making it like our own.

The sexism in STRANGER IN A STRANGE LAND seems more serious, because it is a more integral part of both plot and theme. The plot of STRANGER deals with the process by which a human being, Valentine Michael Smith, born on Mars and reared by Martians, learns how to be human. Because of his Martian training, Mike is adept in teleportation, precognition, and telepathy. He has control over the involuntary as well as the voluntary systems of his body and can change his body contours, virtually stop his metabolism, or levitate at will. In a sense, he is a god. But according to the story, any human being can learn to do these things who will take the trouble to learn Martian (The concepts cannot be expressed in any human language), and thus everyone is a god. In learning to be human Mike learns that man's thought is dominated by his sexuality. Man the god is also an animal. The theme of the book is the godness and animality of human nature as symbolized by Mike's name: Smith, the most common English surname, is preceded by Michael, the name of the Christian archangel, and Valentine, the patron saint of love.

The book is attractive for many reasons. The male characterizations are particularly good. Jubal Harshaw, Mike's spiritual father, is a stock character of Heinlein's--the crusty old man who is pragmatist, cynic, and anarchist--but Heinlein has never portrayed him with greater depth and verve. In his innocent genius Mike can be compared only with Olaf Stapledon's Odd John, and Mike is more three-dimensional. The description of the Fosterities is a fine satire on American religious sects, especially those indigenous to California. Technically, STRANGER seems more unified than most of Heinlein's novels. Any science fiction novel must have one part which sets up the assumptions of the future environment and another which works out the assumptions, and Heinlein usually has difficulty in uniting the two parts. The scan of universal happenings at the beginning of each section helps, but a greater unifying force is the characterization of Jubal the observer and overseer of Mike's development.

Because the book is so attractive, it seems a shame that it is based on a sexual mystique which is atypical of Heinlein's work as a whole. Unfortunately, the tall, blonde, tanned, and brilliant heroine is absent. Instead there is a gaggle of females pursuing the traditional female occupations of secretary, nurse, and stripper. They are stick figures (albeit very curvy sticks) who merely adore Jubal and Mike Superstar. Even Patty, the tattooed lady snake charmer, has little individuality, and Jill, who in the opening section of the book is at least quick-witted and stubborn, in subsequent sections becomes more and more the faceless high priestess of sex.

The description of life in the nest--the communal marriage--in Part Five is in every respect a pipe dream. Mike's Martian teaching enables his "water brothers" to live without getting old, to drink without getting drunk, to eat without getting fat, and to smoke without getting lung cancer. Anything or anybody that gets in their way simply disappears. Their bodies become sex machines which perk along like VW engines day and night, never becoming frustrated in the sexual act, but never becoming satisfied enough to stop. Although in converstation the characters repeatedly make the point that sexual intercourse is a spiritual communication, the overall impression of the group marriage is pornographic. It is in pornography, not in life, that women are constantly willing and men constantly able.

Mike teaches his friends that sex is primarily a means of growing together and that reproduction is secondary. Nevertheless, as the characters perfect their means of communication they seem to have less and less to communicate. Early in the book the narrator makes this editorial comment: "Human bipolarity was both binding force and driving energy for all human behavior, from sonnets to nuclear equations. If any being thinks that human psychologists exaggerated this, let it search Terran patent offices, libraries, and art galleries for creations of eunuchs." Mike's nest, despite its apotheosis of sex, produces no art, no music, no poetry--not even a new culinary taste sensation. The Nest is a pipe dream, and a masculine one at that--full of eager chicks who have no needs of their own, no minds of their own, and no beauty other than that of the machine shop calendar.

In previous books and short stories, Heinlein has always shown great respect for the potential of the human race. He sees man as fundamentally a pioneer and explorer. It is man's nature to be restless, to look for whatever is "beyond this horizon." In METHUSALAH'S CHILDREN Heinlein makes the point that man is geared to achievement, so that stagnation is worse than death. The qualities of both men and women that he holds up for admiration in the early works are all pioneering virtues. Heinlein's early heroes and heroines are can-do people. As Damon Knight says in the introduction to THE PAST THROUGH TOMORROW, "Heinlein is a moralist to the core; he devoutly believes in courage, honor, self-discipline, self-sacrifice for love or duty." He is at his best in describing man's belief in himself, man's struggle for survival.

In STRANGER there seems to be a loss of nerve. In contrast with the earlier works, STRANGER does not depict mankind as capable of surviving to shape its own destiny. Instead, humanity can be saved only by the intervention of an archangel. (In the last few pages, we learn that Mike is none other than Michael himself.) It is, I think, this loss of nerve which makes the sexism in STRANGER so offensive. A subsequent book, THE MOON IS A HARSH MISTRESS, has a much more wildly improbable system of sexual relations. But it is not offensive because the system is part of a pioneer society, a society where can-do-ism is all-important. The group marriage of STRANGER is an enclave which never really interacts with the social system. By isolating sex from society, it fails to deal artistically with human sexuality.

As a feminist, I cannot approve of STRANGER: its mild pornography is insulting to women, and its anomie is insulting to both women and men.

SHORT FILMS AND SCIENCE FICTION

Only a very few years back, many English teachers would have disputed loud and long about the values of film in the English classroom. If much of the criticism stemmed from a fear of non-print media generally or a fear of that THING, the projector, much of it also came out of ignorance of the films themselves. Skipping feature films entirely, and many English teachers did know something about them, the whole world (now vast and growing vaster by the month) of short films was new to most teachers of English, even short films as well known as "Why Man Creates" or "Moods of Surfing" or "Dream of Wild Horses" or "The Red Balloon" or "Nahanni." That ignorance is less and less widespread as teachers take course work or attend film workshops or go to conferences with those ubiquitous film festivals.

Some short films might easily work in a unit or elective on science fiction. Below are listed just a few such films with some information, a plot summary, and some questions that might be useful in working with the film and science fiction.

1. "Automania 2000," Contemporary Films, 10 minutes, color, rental $12.50. A solemn narrator pontificates about the advances of science and the help that science has been to man in moving him forward as the viewer watches the development of cars and particularly the car of the future. Cars take over and manipulate man and man's life until he and his world are choked with a surfeit of cars. A very funny and biting commentary on man's propensity for creating his own destruction. Questions that might be used could include Why does man constantly succeed in creating ways of killing himself? What philosophy of life is being criticized in the film? How can we correct these conditions before it really is too late?

2. "Hypothese Beta," Contemporary, 7 minutes, color, rental $12.50. An allegorical tale of one hole (very early personified) in an IBM kind of computer card who does not know or is not willing to play the role in life for which he was create An electric impulse going through the card is rejected time after time until the per sonified hole finally succeeds in moving and causing an electric impulse to go throu successfully, and the film ends as we see a human hand pushing the switch on a missi button. A most disturbing allegory which asks questions like How can man learn to control an automated society or will it control him ultimately? How does the filmmaker blend humor in with satire and the bleakness of the final scene?

3. "Les Escargots," Contemporary, 11 minutes, color, rental $15.00. A farmer finally succeeds in getting a crop from his barren land through his own tears (quite literally). The tears water the crops, and the crops grow to gigantic size which are in turn eaten by snails who also grow to immense size. And the snails start in to destroy the entire world with their voracious appetites. A fearsome and surprisingly convincing film about man's ability to create his own destruction. Is the downfall of man inevitably going to come from his own hands? Is the downfall inevitable?

4. "A Matter of Survival," Contemporary, 26 minutes, color, rental $28.00. Not set in the future and nominally not science fiction at all, the film concerns the coming of computerization to the accounting department of a large company and the horrors that happen to some very believable human beings as they see their lives go under in the name of progress. A deeply disturbing film which ought to lead to questions like What can man do to reduce (or eliminate) the human problems that come with scientific progress? Is company loyalty a good or even viable entity anymore?

5. "Omega," Pyramid Films, 13 minutes, color, rental $15.00. A multitude of colors and sounds and worlds and impressions bathe the viewer. A visually stunning film which may mean much or nothing, but which rarely bores students (though teachers often seem less excited). What is the meaning (if any) of the title? How do the lights and colors create a sense of other-worldness?

POPULAR LITERATURE: MATRIX OF SCIENCE-FICTION

F.H. Bradshaw, Westwood High School, Mesa

In the light of the considerable effort made by teachers in various schools to work up a rationale for the teaching of science fiction courses, it seems surprising that more have not gone the whole way and proposed teaching the whole spectrum of popular literature. After all, science fiction is only one small segment of this rather vast field which has been virtually ignored. If a rationale can be found for science fiction, surely a similar one can be found for the mystery-detective story, the western, the light romance, historical fiction, adventure, popular true adventure, and general human interest stories and magazine articles--in other words for the whole field of escape literature.

At Westwood High School I have been teaching such a course for the last two semesters with most gratifying results. Its popularity with young people is attested by the fact that registration in the course for next year jumped more than 100 per cent. Six sections have been taught this year; there has been registration for thirteen sections next year. It would be possible to justify teaching such a course on many grounds; certainly social mores and values are reflected as well in popular literature as in more serious literature and certainly literary values in much of it are equally high. As a matter of fact, some of the most skilled and craftsmanlike writing in the field today is in the area of popular literature. Very often structure, organization, characterization, and so forth can be more clearly demonstrated in the simpler forms of popular literature than they can otherwise. But at Westwood we base our rationale for the course almost entirely on reading and composition.

Ask yourself how many times in his school experience a high school student is likely to have had reading material placed in his hands for no other reason than the possibility that it may give him pleasure and fill some of his leisure hours. Almost invariably, even when interesting and exciting stories are assigned in class, they are accompanied by more or less searching questions and exercises which often take the fun out of the reading. It is my considered opinion that nobody ever became an enthusiastic reader until he found that he could get pleasure, excitement and stimulation from reading. How many of us, if we love to read, love it because we always learned something from it? If we want our young people to become readers, then we must give them a chance to find out that reading can be fun. Even when young people go to the newsstand today and look over the paperback books on display, they are confronted with such a bewildering variety, and their own reading experience is so small that they are at a loss to pick out reading matter with any confidence at all that they are picking something they will like. I am constantly amazed, in this popular literature course, at the great number of students who have never read a mystery story, or a science fiction story, or a story in this or that other category.

The second half of the rationale for the course concerns composition. Over the past years we have been given to understand by freshman composition teachers in colleges and universities that the chief weakness they find in the incoming freshmen is the inability to express a single idea and develop it logically and coherently over a number of paragraphs in a four or five hundred word paper. For the teaching of this particular aspect of composition, nothing can be better designed than the critical review, and so we ask our students to write critical reviews, not of everything they read but a significant number of things. These

reviews are of two general and simple types. Type A asks the student merely did you like it, and why or why not. Type B asks him merely if it is good, and why or why not. At the end of this article I include the instruction sheet which we hand students for these reviews.

As I originally planned to teach this course, it would have been highly structured. I had planned that the class as a whole, or at least small groups would all read the same selections and then that we would have group discussions, panels on development of forms and themes and other relevant considerations. At the outset this type of procedure met solid student resistance. I had in the classroom many paperback books and many short stories taken from magazines, and the students found the material itself so interesting that all they really wanted the teacher to do was to sit down and leave them alone to read. This I did with unlooked-for results. I found that when I was not spending my time exhorting students and questioning them to generate discussion, when I was not organizing projects and lecturing on background and themes, I was able to establish contact with each student on a one to one basis. I found that I had sufficient time in class to confer individually with each student on every paper he wrote, and any experienced composition teacher knows what a boon this is. Besides this I was able to probe students' individual preferences, likes and dislikes, and experience in reading, and thus could offer him guidance in the selection of new things to read which was really apt to be helpful. Altogether the past year with this class has been a delightful teaching experience. For teachers interested in working up such courses for their own schools I append a partial list of materials I have used this year. As a general background for the teacher himself, I heartily recommend THE UNEMBARRASSED MUSE: THE POPULAR ARTS IN AMERICA, (Russel Nye, Dial Press, New York, 1970). This volume includes a history of all the popular arts in the U.S. and is written in the most stimulating way, but the chapters on science fiction, mystery stories, and the western are of particular value to the teacher.

LIST OF BOOKS USED IN POPULAR LITERATURE COURSE

This list should be considered simply as a number of suggestions and in no way comprehensive. Often in the case of prolific writers, the titles listed have been chosen for no other reason than that the writer should be included. Any number of other titles might do as well or better. Some attempt has been made to include early specimens of a genre as well as contemporary ones. In the case of the western, contemporary works show some deteriorization and it would be well for the teacher to seek for out-of-print titles by such writers as Eugene Cunningham, Clarence E. Mulford, William McLeod Raine, and others. Besides these the present writer uses a large collection of short stories from both old and current magazines.

HUMAN-INTEREST

Borland	WHEN THE LEGENDS DIE	Moody	LITTLE BRITCHES
Bonham	THE NITTY GRITTY	North	RASCAL
Bristow	CELIA GARTH	Rose	ROOM FOR ONE MORE
Bristow	THIS SIDE OF GLORY	Selino	DESIREE
Braithwaite	TO SIR WITH LOVE	Seton	KATHERINE
Cox	CHICANO CRUZ	Thane	DAWN'S EARLY LIGHT
Freedman	MRS. MIKE	Thane	YANKEE STRANGER
Griffin	BLACK LIKE ME	Tunis	KID COME BACK
Hilton	GOOD-BYE MR. CHIPS	Ullman	BANNER IN THE SKY
Kjelgaard	FIRE HUNTER	Wibberley	MOUSE THAT ROARED
Kaufman	UP THE DOWN STAIRCASE	Zindel	THE PIGMAN
LaFarge	LAUGHING BOY		
Michener	BRIDGE AT TOKO-RI		

TRUE ADVENTURE

Cousteau	THE SILENT WORLD
Heyerdahl	KON-TIKI
Hunter	HUNTER

ROMANCE

Aldrich	LANTERN IN HER HAND
de la Roche	WAKEFIELD'S COURSE
de la Roche	WHITEOAK HARVEST
Gallico	LOVE OF SEVEN DOLLS
Lofts	LOVERS ALL UNTRUE
Shute	LEGACY
Turnbull	WHISTLE AND I'LL COME TO YOU
Turnbull	GOWN OF GLORY
Whitney	SILVERHILL

MYSTERY-DETECTIVE

Bentley	TRENT'S LAST CASE
Christie	AND THEN THERE WERE NONE
Christie	MOVING FINGER
Doyle	HOUND OF THE BASKERVILLES
Doyle	GREAT STORIES OF SHERLOCK HOLMES
Eberhart	FAIR WARNING
Eden	WAITING FOR WILLA
Ford	MURDER COMES TO EDEN
Gardner	THE CASE OF (almost any of them)
Hillerman	THE BLESSING WAY
Kemelman	FRIDAY THE RABBI SLEPT LATE
Knebel & Bailey	SEVEN DAYS IN MAY
MacInnes	ABOVE SUSPICION
MacInnes	AIRS ABOVE THE GROUND
McCaffrey	MARK OF MERLIN
Maclean	ICE STATION ZEBRA
Marrie	GIDEON'S MARCH
Rinehart	HAUNTED LADY
Sprague	SIGNPOST TO TERROR
Shannon	KILL WITH KINDNESS
Shannon	DOUBLE BLUFF
Stout	THREE DOORS TO DEATH
Tey	MAN IN THE QUEUE
Van Gulik	CHINESE BELL MURDERS

WESTERN

Haycox	ACTION BY NIGHT
Haycox	BORDER TRUMPET
Haycox	SUNDOWN JIM
L'Amour	HONDO
Portis	TRUE GRIT
Raine	BORDER BREED
Short	AMBUSH
Short	FIDDLEFOOT
Short	KING COLT

SCIENCE FICTION AND FANTASY

Asimov	CAVES OF STEEL
Burroughs	TARAZAN OF THE APES
Burroughs	RETURN OF TARAZAN
Burroughs	PRINCESS OF MARS
Burroughs	AT THE EARTH'S CORE
Crichton	ANDROMEDA STRAIN
Frank	ALAS, BABYLON
Heinlein	WALDO AND MAGIC, INC.
Heinlein	BEYOND THIS HORIZON
Heinlein	HAVE SPACE SUIT, WILL TRAVEL
Heinlein	PUPPET MASTERS
Keyes	FLOWERS FOR ALGERNON
Norton	CATSEYE
Norton	DARK PIPER
Norton	BEAST MASTER
Smith	SPACEHOUNDS OF IPC
Smith	SKYLARK OF SPACE
Smith	GALACTIC PARTROL
Schmitz	DEMON BREED
Schmitz	WITCHES OF KARRES

OF WHAT USE: SCIENCE FICTION IN THE JUNIOR HIGH SCHOOL

S. James Jakiel, State University College, Buffalo, New York

The problem of finding suitable reading material for junior high school students can be partially solved by using literature of the science fiction genre as transitional literature from the children's books they have been reading to the books they will read as "young adults."

An article in the NEW YORK TIMES BOOK REVIEW, "What Do Ya's Read?", Webster Schott tells us that his investigation (although limited) of what young adults read showed that many were reading from the PUBLISHERS WEEKLY best-seller list and some from the American Library Association list.

More important than what a junior high student reads is that he reads at all. When he starts to read as a leisure activity, it is up to us to encourage him with materials designed to capture the imagination and make him recognize the foresight and creativity of the writers of science fiction.

I suggest the reading and discussion of some of the following books as material to introduce the idea that an author is a "creator" and must make the reader believe that what he is reading has happened or will happen. The author must also interest the reader through the telling of a tale which is set in the future but which seems to be a part of the young adult's life now. A most necessary point is that the novel present a definite idea, point-of-view, or point of departure for future interest in literature.

Science fiction (or as some prefer to call it, "speculative fiction"), at its best provides the transition from childhood's fancy to adulthood's imagination through the use of situation, setting, characters and plots which one can easily recognize as possibilities. It is possible that some preliminary discussion will have to occur before some students are ready for science fiction. The teacher will hear that man cannot live (for extended periods) on Mars or Venus or Tralfamadore, a world created by Kurt Vonnegut, Jr. He will learn that the space traveler cannot withstand extremes of acceleration or deceleration, that one cannot reach the stars because of the immense distances involved, that one cannot survive the trauma of being separated from large groups of men while on solitary journeys through space. If the teacher is faced with this problem, he will have to convince his students that "everything is possible." In working with my own students, I start my discussions of science fiction with the statement that everything is possible and that nothing is impossible. Improbable? Perhaps. Unlikely? Maybe. But not impossible. Not wishing to appear a wildeyed visionary, I hasten to add that the things I believe will happen may not occur in my lifetime nor in theirs, but they may take place someday. For examples I use Columbus, da Vinci, Edison and the Wright brothers. Thanks to their imaginative reserves and persistence, we know the earth is round, that men can travel underwater, that there are sources of light other than the sun and--perhaps the most exciting of all--that man can fly! (Without harmful effects from acceleration.) They should not be afraid to dream of what might happen because the possibilities are so great.

In the seventy years since the invention of the airplane, man has refined that vehicle until he can fly coast-to-coast in three hours. The first earth-orbiting satellite in 1957 was the forerunner of those that now circle Mars and Venus.

Now, what science fiction is there that will encourage the junior high school reader to learn more of man's exploits and make him think more of the relationship between the author and his subject matter? What books are there that will help him understand some of the reasons men write?

I suggest the following two books for the junior high school student; Ray Bradbury's THE MARTIAN CHRONICLES (NY: Bantam Books, 1954) and ORPHANS OF THE SKY by Robert Heinlein. (NY: Berkley Publishing Company, 1963, Medallion Books). These are but two of the many that might be named, but I feel they are the most important for beginners in the genre.

In THE MARTIAN CHRONICLES the junior high school student is shown the many facets of science fiction. The work is especially recommended because of its timeliness and believability. It deals with scientific, psychological and ecological issues which are close to the truth and men's knowledge as it exists today. The scientific knowledge to reach Mars is at hand and has been used. We need, obviously, the refinement and sophistication of those means and instruments to enable man to land and settle on Mars. In short, we are at an inbetween stage of this part of the "fiction." One can hardly deny that some has already come true, and it would be equally difficult to argue that the rest is impossible.

Studied from the psychological aspect, Bradbury must be considered a master of understanding of the human mind. Consider the frustration of hitting a hole-in-one without witnesses. This is the frustration felt by the crew of the expedition to Mars when they tried to convince the Martians that they were from Earth. To the Martians the men were only having the most exquisite hallucinations! How much this episode would tell the junior high school student about man's inability--or willingness--to accept that which is contrary to his own belief or prior knowledge. It would do much to teach him of national and world conditions as they exist caused by the inability of some men and some nations to believe or to understand one another.

From the ecological standpoint, one must consider what happened to Mars as a result of the coming of the Earthmen. Carried by man, disease destroyed the natural balance of basterial life on Mars and caused the destruction of civilization. Greed, harbored in some of the men, caused the exploitation of the Martian countryside and laid waste to many lands in the same manner that we describe when we speak of what is happening to our world.

There are three basic reasons to study THE MARTIAN CHRONICLES: (1) It deals with problems that are real to our youth, (2) It is good fiction, and (3) It is easily read either in whole or when divided into parts. (A great part of the original material first appeared as separate short stories.) All three reasons show the student the elements of good literature, facilitate his handling of the material and do it within a realistic context--one that is not loaded with impossible and illogical ants and lizards which seem to characterize what so many think of as "science fiction." It is recommended then that this book be used to demonstrate the plausibility of science fiction and also to show its relationships to real events and the real future as it seems to be emerging.

Another book for the junior high reader--male or female--is Heinlein's ORPHANS OF THE SKY. Its "world," the inside of a giant space ship, is all the characters have known since birth. The ship was the work of "Jordan." He was the creator of this entire world. The inhabitants knew nothing of the outside. They did not even suspect the existence of an outside. The thought simply never occurred to them.

The story can be read on a very simple level, or it can be used to show students the basic similarities between men all over the world when they encounter something or someone that is different. Many good discussions can result from the reading of the book and comparing it to other literature dealing with other settings and with other cultures.

1. Is it possible that anyone could be unaware of the existence of a universe? (Think back to the Dark Ages. This only shows how history lessons can be forgotten.)

2. Could one live in a self-contained capsule even if it were of super-colossal size? (Astronauts and aquanauts live in restricted environments. For that matter, so do people on small islands or those on the twentieth floor of a multiple dwelling.)

3. Could there be such things as "mutants"? (There are. Both plant and animal. Radiation causes some of them; drugs, others. We know they exist. Perhaps they are easier to accept if they happen to flowers rather than to people as in Zindel's THE EFFECT OF GAMMA RAYS ON MAN-IN-THE-MOON MARIGOLDS.)

4. How many generations would it take for the greater part of technical skills and reading and mathematical abilities to be forgotten? Could such an event occur? (Consider how rapidly one may forget the various things he has learned when they are subject to disuse. On the other hand, think how long it would take a group of unskilled persons or children to rediscover mathematical formulas and technical knowledge.)

Perhaps the greatest literary value to be discovered from reading ORPHANS IN THE SKY is the analogy between the origin of the ship and the Biblical account of the creation of the Earth. While not so much emphasis is placed on this in the book to either distract the young reader or to offend someone because of his religious beliefs, the analogy is there so that the young reader can be taught the significance of that literary device. Because of the possible misdirection of feeling, I think it unfair to take lines out of context as a general practice; however, in the case of ORPHANS IN THE SKY the point may be made with two examples from the book in which an apprentice is reciting . (incidentally Jordan was the scientist who designed the ship.)

> In the Beginning there was Jordan,
> thinking his lonely thoughts alone.
> In the Beginning there was darkness,
> formless, dead, and Man unknown.
> Out of the loneness came a longing, out of
> the longing came a vision,
> Out of the dream there came a planning,
> out of the plan there came decision--
> Jordan's hand was lifted and the Ship was born! (page 16)

and

> The boy's voice droned on, stanza after stanza, reciting at great length but with little sharpness of detail the old story of sin, rebellion, and the time of darkness. How isdom prevailed at last and the bodies of rebel leaders were fed to the Converter /energy cell/. How some of the rebel leaders escaped making the Trip and lived to father the muties /who lived in the nether parts of the ship/. (page 17)

It does not take much imagination to compare this to Genesis or even to Milton's PARADISE LOST. (While I do not recommend the teaching of Milton in the junior high school, the analogy should enable the teacher to see that he is viewing a serious attempt at literature.)

For the students who do not wish to read long works, and for the teacher who might be reluctant to attempt the science fiction genre, I suggest reading some short stories so that a taste for it might be acquired. There is a threefold use of the science fiction short story:

1. If it fails, one has lost only a short time.
2. Some literature in massive doses can be fatal.
3. There is a great wealth of short science fiction that will fit almost any taste. Three very good anthologies are: SCIENCE FICTION HALL OF FAME edited by Robert Silverberg (NY: The Hearst Corporation, 1971), SCIENCE FICTION FOR PEOPLE WHO HATE SCIENCE FICTION edited by Terry Carr (NY: Doubleday, 1966), and SF: THE BEST OF THE BEST edited by Judith Meril (NY: Delacorte Press, 1967).

I urge those who teach English in the junior high school to look beyond the ordinary literature materials and use science fiction in the classroom at least once. Much of it is well-written and respectable. It has graduated from the "pulp" category. It appeals to today's young reader because of its earlier forecasting of some of the things they are actually witnessing. It provides abundant material for sociological conjecture. But more important than all of these--it might be the literature which turns your students on!

SCIENCE FICTION AND FILMS ABOUT THE FUTURE

Beulah Boyd, Palo Verde High School, Tucson

This is not a unit on science fiction. Instead it is a record of some uses of science fiction and films about the future for sophomores of varying abilities.

With sophomores there are four areas of desired improvement - (a) improvement in comprehension of reading, (b) improvement in vocabulary, (c) improvement in group discussion, (d) improvement in ability to express ideas in an organized written form. My students read better, discussed more thoroughly, and wrote more effectively with the use of science fiction and films than with other materials. We read Arthur C. Clark's 2001: SPACE ODYSSEY, Ray Bradbury's THE MARTIAN CHRONICLES, and Saint-Exupery's THE LITTLE PRINCE. We saw the films "Frontier of the Mind," "Talking of Tomorrow," "The Communications Explosion," and "Prospect for Humanity." This combination of reading and films made for interest in reading and lively discussion and even fewer groans at writing.

One specific ability which sophomores need to learn and use is the ability to use the READER'S GUIDE. They used as topics the ones which arose in discussion from their reading of science fiction. This material is no panacea for all the difficulties, but it did encourage them to read because it excited curiosity and it did give a relationship between reading, taking notes, oral discussion, and writing.

Naturally there are understandings which we wish students to gain - (a) understanding of language development, their own and that of other societies, (b) understanding of communication and what it means to all societies, (c) understanding of ideas and concepts of their own society and those of other societies. The books, Arthur C. Clark's AGAINST THE FALL OF NIGHT and Ayn Rand's ANTHEM brought good discussion of the ideas of other societies and of the idea of Utopia. Films used were "The Farthest Frontier," "People by the Billion," "Challenge to Mankind," "Weird World of Robots," "The Deep Frontier" and "The Remarkable Schoolhouse." Discussions were lively. Students oppose the Utopian Idea. They resist change.

But we practiced the improvement of vocabulary; we practiced expressing ideas both orally and in written form. And we learned from science fiction and films about the future.

A FEW SCIENCE FICTION BOOKS

Graff Conklin, ed., GREAT SCIENCE FICTION BY SCIENTISTS
John Christopher, THE GUARDIANS
John Wyndham, TROUBLE WITH LICHEN and REBIRTH
Arthur C. Clarke, AGAINST THE FALL OF NIGHT and 2001
Jack Finney, TIME AND AGAIN
Saint-Exupery, THE LITTLE PRINCE
C.S. Lewis, OUT OF THE SILENT PLANET
Ayn Rand, ANTHEM
Walter Miller, A CANTICLE FOR LEIBOWITZ
Ray Bradbury, MARTIAN CHRONICLES

A FEW SHORT FILMS

"Talking of Tomorrow" (Bell Telephone Lab)
"The Farthest Frontier"
"People by the Billion"
"Frontier of the Mind"
"This Is Marshall McLuhan" (U of California Media Center)
"Challenge to Mankind"
"How Do Things Look?"
"Weird World of Robots"
"The Communications Explosion" (McGraw-Hill Films)
"The Mighty Atom"
"The Computer Revolution"
"R. Buckminster Fuller"
"America on the Edge of Abundance"
"Life in the Balance" (Modern Talking Picture Service)

THREE MONTHLY ESCAPES

Randy S. Huntley, Arizona State University Student

Every time I had a test or semester final I think someone told the SF magazine publishers. On my way home to study I would stop for a cup of coffee and there, there.....on the newstand would be the latest issues. Being a true SF addict do you think that I studied American Realism that night? Not a chance, when I could be visiting fabulous galaxies and partaking of exotic adventures. I studied only after reading every page of my latest treasure. At least some of your students might find their way into the worlds of reading via this form of literature and I would highly recommend that you have some copies on your classroom bookshelves. I don't think that it will hurt them too much because even I managed to graduate, despite the nefarious influences of SF.

SF has often been criticized for being escapist and simplistic; having about the same appeal as cheap mystery stories. I would agree on both points--from a positive viewpoint rather than a negative one, however. Many SF short stories do have simple plots. But built on those plots are whole universes that provide us with experiences that might never be except for the imaginations of SF writers. Over a number of years I have recognized that the subject matter of SF has certain categories. Intergalactic warfare, robots vs. man, giant computers and microscopic computers running worlds and universes, time travel, man's contact with alien cultures--there are many, many more. It is this subject matter that is the basis of SF writing, the material that allows us to escape this world and our contemporary realities (like tests) to dream under other suns. Here are some of the escapes that have interested me in recent months, along with a mixture of comments on the SF genre.

One SF technique often used is that of the parallel world or history. Harry Harrison explores this in "A Transatlantic Tunnel, Hurrah!" (May 72 ANALOG). Britain still rules the world with America as one of its colonies. A descendant of that "traitor" George Washington undertakes to build a railroad tunnel between the two continents in a world where real "horseless carriages" are pulled by steam engines, helicopters run on propane gas, and flying boats are powered by coal. It would be interesting to have a class read this one and then write up their own parallel histories.

Often SF writers do not go way out for their material. Despite being set on another planet, "The Mercenary" by Jerry Pournell (July 72 ANALOG), has strong echoes of Vietnam throughout it. Perhaps we could call this type of SF "transplanted realism." A more common type of SF story takes a technological possibility and develops it to an extreme. Isaac Asimov, the classic robot story writer does it again in "Mirror Image" (May 72 ANALOG). He delves deep into robot psychology to solve the mystery that develops when it is found that one of two robots is lying. The protagonist can only answer the question of which one by deciphering the laws of robotics. Interestingly this story is a perfect takeoff on the Sherlock Holmes type of mystery.

Technology obviously plays a large part in SF stories. It seems as though authors attempt to invent the most bizarre technical societies possible and then have their characters get into situations which they must resolve either with, against, or in spite of that technology. Many of the editorials and book reviews in SF magazines are concerned with the problems SF writers face in making these technologies believable when they are based on known sciences. These essays usually are quite good translations of highly technical material into common English. "Collision Course" by S. Kye Boult (July 72 ANALOG) is a technology story

for geologists. It concerns a planet where colonists live on crystals that float on molten magma with the ability to migrate from one area of the planet to another. The action erupts when one crystal turns pirate and attempts to take over our hero's crystal.

Another kind of technology story often is about a revolutionary development set in our own times. In "Other Days, Other Eyes," by Bob Shaw (May 72 AMAZING SF), a substance known as "slow glass" makes a fortune for its inventor until he finds out that the government is using it as the ultimate spy weapon. Fantasy obviously takes over the story when the inventor coerces the government to stop using his material for spying on the public and even stops producing it himself. This is one of those stories that obviously lends itself to the classroom game of "what would you do in his place?". This novel has recently been published in paperback.

"Watchdog" (May 72 ANALOG) is one of those intriguing computer stories. Jack C. Haldeman's monster computer has waited so long for man to return to Earth that it has become neurotic and begins fantasizing returning spaceships in various states of emergency which only it can save them from.

Mysticism is another element often seen in current SF writing. William Rather investigates levels of being in "Star Level" (March 72 AMAZING SF). Then there is the runaway seance conducted by computer in "Carolyn's Laughter" by Robert Churston (January 72 FANTASY & SF). It would make a definite hit on "Twilight Zone."

In one of my favorite mystic stories the Landlord shows Sky Blue how to help out a world's ecology in Alexis and Cory Poushins' "Sky Blue" (March 72 AMAZING SF). Sky Blue's parents make a deal with the Landlord when their spaceship breaks down to live on one of his planets and take good care of it. Instead they proceed to dig it up for materials to repair their ship. Only Sky Blue tries to keep the planet green by cleaning up after his parents. When they become afraid that the Landlord will punish them, Sky Blue is forced to try and kill him. This turns out to be impossible. Instead the Landlord shows Sky Blue how to repair the planet all at one time, much to the dismay of his parents who find all their materials back in the ground. Sky Blue reaches "planet level" in the process and goes tripping off with the Landlord through space.

This story would provide an excellent beginning point for a class discussion of the environmental problems we have here on Earth. One of the most important contributions that I see SF making in the classroom is that it allows us to objectify contemporary problems by placing them at a distance from us through fiction. This is, of course, the opposite of what realistic writers attempt. For the purposes of teaching at the high school level I think that many of these stories provide worthwhile material for discussing contemporary problems. As an example a teacher could start a unit on mythology with "Love Is a Dragonfly" by Thomas Swann (March 72 FANTASY & SF). It deals with an isolated instance in the life of Jason in a world populated by Dryads, Fauns, and Centaurs. Even better is Poul Anderson's "Goat Song" (February 72 FANTASY & SF) in which the legend of Orpheus is redone with Pluto being replaced by another of those super computers.

Another kind of myth occurs in the very funny Gary Jennings story, "Sooner or Later or Never Never" (May 72 FANTASY & SF). A missionary goes to Australia to convert a group of Aborigines by showing that an ancient ritual either works because of <u>his</u> God, or doesn't because <u>their</u> God is false. He has it figured either way but the tribe poses a problem in that they have long given up such rituals. Unfortunately he forces them at gunpoint to reenact the ritual and the result

wipes out Northern Australia with a tremendous rainstorm.

If the best contemporary novelists are those that combine a number of literary devices to provide a complex depth to their writing then perhaps the best SF writer is one who can combine the most SF categories into one. Phyllis Gothel has done a great job of doing so in "Son of the Morning" (June 72 FANTASY & SF). An encased ESP brain, two levels of aliens--Feline and Energy classes, a time warp, 13th century Russian Jewish History and theology all play their part in this excellent story.

I have already mentioned an added attraction of the SF magazines but here are some examples. Mixed in with the best of SF short stories are editorials concerning the history and state of the genre, book reviews, movie reviews, TV reviews, and science articles by such people as Isaac Asimov, a regular column writer for FANTASY & SF. Some of the more impressive examples are "The Future of Automotive Power Plants" by R. G. Cleveland (July 72 ANALOG) and "Celestial Mechanics" by Rowland E. Burns (May 72 ANALOG) which explains a little of what you would have to know to navigate a spaceship. Occasionally there are issues such as FANTASY & SF's "James Blish Special" (April 72). It contains a novel and book reviews by Blish, a profile of his career, and a bibliography. For teachers FANTASY & SF put out an excellent issue on the teaching of SF at the university level (May 72), with articles that contained information helpful to the high school teacher as well as the university teacher.

While I am at it I would like to quickly plug another media for SF. Many contemporary recordings deal with science fiction and fantasy materials. A few excellent albums that deserve a place in any SF unit are TO OUR CHILDREN'S CHILDREN'S CHILDREN by the Moody Blues, and JEFFERSON STARSHIP by the Jefferson Airplane.

I hope that from this short article you may have seen the value of having some copies of these magazines laying around your classroom so that you/and or your students can escape every once in a while. There are a few magazines such as IF, GALAXY, and probably others which I can't give any information on but which I am sure you can find if you look hard enough. Concerning my three escapes, you can find them at almost any good magazine stand or order them from:

THE MAGAZINE OF FANTASY AND SCIENCE FICTION
Mercury Press, Inc.
Box 56
Cornwall, Conn. 06753 (1 year--$8.50)

SCIENCE FICTION, ANALOG SCIENCE FACT
Subscription Department
Boulder, Colorado 80302 (1 year--$6.00)

AMAZING SCIENCE FICTION
Box 7
Oakland Gardens
Flushing, N.Y. 11364 (1 year--$3.00, 6 issues)

THE SCIENCE FICTION FILM

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Everyone seems to know that science fiction movies exist, but no one seems especially overjoyed by this knowledge; such films have long been regarded as one of the more embarrassing aspects of our culture which, though of some passing interest to social historians, had best be consigned to latently psychopathic teenagers and tacky drive-ins. Yet at the same time, there is a consistently sizable audience for such films, and quite a few of the members of this audience are intelligent, literate, and otherwise quite normal except for this one aberration. These viewers are characteristically not the subscribers to such off-shoots of the science fiction film as Forrest Ackerman's astonishing kitsch magazine FAMOUS MONSTERS OF FILMLAND, and they may have little patience with third-rate television imitations such as LOST IN SPACE or THE IMMORTAL (though STAR TREK seems to be acceptable); but they do make up the vanguard of a growing number of educated people who see in the science fiction film an interesting and often quite revealing social and emotional history of our times, as well as an emergent etiology of what is potentially a significant genre of the filmmaker's art. For the most part, however, these films are objects of the utmost contempt, of the general disdain that is often directed to the bastard son of quite independent minded parents. Science fiction writers and readers regard the science fiction film as a hideous misrepresentation of what the field is really about, while film critics class them with other "Z" movies that bring in the money with which "real" films are to be made.

In a sense, this is ironic, since science fiction and the movies practically grew up together. Georges Melies, the pioneer French filmmaker of the 1890's used the familiar science fiction convention of the fantastic voyage in several of his short, theatrical fantasy films, most notably the 1902 TRIP TO THE MOON, which combined elements from both Verne and Wells, but had the overall appearance of Baron Muchausen. FRANKENSTEIN, who has had a long and healthy career in science fiction and horror films (despite being destroyed at the end of almost every film), first reached the screen as early as 1910. The great German expressionist filmmakers of the 1920's occasionally turned to science fiction as a likely framework for their bizarre images and situations; Fritz Lang's METROPOLIS, besides being a powerful indictment of the exploitation of the working classes, remains one of the most memorable warnings of the danger of technology overwhelming man, especially in its images of workers frantically moving to control the enormous gauges on an immense underground machine until they drop from exhaustion. Less significant than these films, but perhaps more widely known are the horror movies of the 1930's and 1940's, many of which used a science fiction device to provide the groundwork for the horror situation. These are the "mad scientist" films so often parodied and so painful to watch for science fiction aficionados, not to mention scientists themselves, who may take some mild offense at being portrayed as crabby megalomaniacs with beautiful daughters who are constantly endangered by the revelation of "things man was not meant to know." During the same period, science fiction serials began to appear, directly appealing to a juvenile audience but again giving the impression to more serious moviegoers that sicence fiction meant Flash Gordon.

As if the science fiction film had not suffered enough in the American cinema already, the 1950's had to happen. Perhaps the chief characteristic of the decade of the fifties was its lack of chief characteristics, and the same can be said

of most of the science fiction films of that era. The sudden extreme awareness of atomic energy led the way to awareness of possible nuclear war, of possible mutations, of all sorts of new and at least marginally plausible ways of disrupting the order of nature. Space travel, too, was rapidly coming to be regarded as a real possibility rather than a mere fantasy device as it had been in the serials of earlier years. Special effects had become more sophisticated, thus opening up new realms of exploration for the filmmaker whose primary goal was to amaze the audience. The McCarthy hearings had brought the level of national paranoia regarding possible invasions and subterfuges to an all-time high. Security was perhaps our chief value, but loss of identity was a corresponding danger. All these factors came together to produce an unprecedented plethora of science fiction films, some of which remain distinguished today, but most of which border on self-parody. Of the latter films, many fall into what critics of the genre have come to call the "creature cycle"--the incessant series of monster pictures of which the chief raison d'etre was the ingenuity of the make-up department. Howard Hawks' THE THING, with James Arness as--believe it or not-- a giant carrot monster, was one of the best of these. THEM, which initiated a whole series of giant insect movies--with spiders, ants, flies, leeches, praying mantises, tarantulas, and the like photographed in extreme closeup and then rear-screen projected behind apparently miniscule actors--was another. Jack Arnold was the director who developed this kind of film to its apex (if it can be said to have had an apex) with THE CREATURE FROM THE BLACK LAGOON, REVENGE OF THE CREATURE, THE INCREDIBLE SHRINKING MAN, and others (the latter film is really of the "giant animal" variety, but instead of trying to come up with a single plot device that would allow for giant cats and giant spiders and such, Arnold merely borrowed Richard Matheson's clever idea of reducing the size of the hero--a fairly old idea in the literature of science fiction which had been used over and over again by Ray Cummings and other authors). If these films are viewed in a non-didactic way--as exercises in the aesthetics of audience manipulation and horror--some of them are quite successful despite their apparent lack of content.

This kind of movie more or less died out in America in the sixties (a few are still being done, but only half-heartedly), but the most decadent elements of it--the dependence on special effects and huge catastrophes--were picked up by Inishiro Honda and other Japanese filmmakers, who instituted a "creature cycle" of their own that, for sheer size of effects and idiocy of plots, makes the American films pale by comparison. The recurring theme in such films as GODZILLA, RODAN, MOTHRA, and the like is that atomic testing is very bad and tends to either create or resurrect incredibly huge monsters with appetites for large urban areas. Such concern over the effects of uncontrolled atomic energy is perhaps more understandable in the Japanese cinema than in the American. In the latter half of the sixties, however, Japanese filmmakers moved away from the purely simplistic values of the early monster pictures and into other realms of science fiction involving space travel, invasions of earth, and such typical science fiction plots that characteristically depend more on situation and plot than simple effect. And the real weakness in Japanese science fiction filmmaking becomes apparent in such films: without a monster or other baroque image to overwhelm the audience's consciousness, the astonishing stupidity of the fiction involved becomes so apparent as to almost make such films as INVASION OF THE NEPTUNE MEN, EVIL BRAIN FROM OUTER SPACE (1964), or WAR OF THE SATELLITES almost unwatchable. The limited success of the more involved areas of science fiction has forced the Japanese to turn again and again to the monster gimmick, resulting in such bizarre titles as GODZILLA vs. THE SMOG MONSTER (1972), the latest of the cycle of Godzilla films in which, perhaps because of familiarity, the beast Godzilla has become a kind of folk-hero saving us from various other horrible beasts; and such

Japanese-American efforts as THE GREEN SLIME, which seems to be an attempt to cash in on a phrase that has long been in common use--but usually for the purpose of demonstrating how infantile science fiction can be.

While such films as these have long been the most prominent examples of the cinema of science fiction (though it can be argued that most of them bear a closer resemblance to fairy tales than to literary science fiction), other more restrained films have appeared with some regularity over the years both in Europe and America. H.G. Wells' own 1934 adaptation of his THE SHAPE OF THINGS TO COME remains a respectable, if not terribly exciting, film even today. Film versions of such marginally science fiction works as James Hilton's LOST HORIZON and H. Rider Haggard's SHE hold up very well--as evidenced by the periodic remakes of the latter film (the most recent starring Ursula Andress) and the current plans of producer Ross Hunter to mount a lavish musical version of the former. The special effects of the 1933 THE INVISIBLE MAN, based on the Wells novel and directed by James Whale of FRANKENSTEIN fame, remain impressive today, as do those of the 1951 WHEN WORLDS COLLIDE, an adaptation of the Philip Wylie-Edwin Balmer novel. WHEN WORLDS COLLIDE was only one of a number of end-of-the-world films of the fifties, many of them reflecting the tension of the early days of the cold war. Roger Corman's 1955 THE DAY THE WORLD ENDED exemplifies the commercial, monster-oriented approach to this theme (while the same director's I WAS A TEENAGE CAVEMAN, a 1958 opus starring Robert Vaughan of MAN FROM U.N.C.L.E. fame, provides an interesting variation). But often this theme, with its tempting homiletic possiblities, attracted more serious filmmakers. Arch Oboler, who had attained something of a reputation writing the scary LIGHTS OUT radio shows, wrote, produced, and directed FIVE in 1951, about the last five people on earth after an atomic war; the film is sincere and often thoughtful, though somewhat dated today. The 1959 film with a similar plot, THE WORLD, THE FLESH, AND THE DEVIL, attracted such major stars as Harry Belafonte, Inger Stevens, and Mel Ferrer (as the last <u>three</u> people on earth); significantly, the cause of the earth's depopulation-a cloud of poisonous gas in the movie's source (M.P. Shiel's science fiction classic THE PURPLE CLOUD)--is changed to an atomic war in the film itself. But by far the most ambitious of all end-of-the-world dramas is Stanley Kramer's 1959 film of Nevil Shute's ON THE BEACH which, though well-acted and containing images of striking forcefulness (as well as a few of misdirected preachiness, such as the final shot in the film, after everyone is dead, of a revival banner reading "There is Still Time"), is really only marginally science fiction. The spectre of atomic warfare in the fifties had provided a gate through which science fiction themes could enter without loss of respectability into the mainstream of "serious" literature; ON THE BEACH was a product of this, as was Philip Wylie's TOMORROW, Burdick and Wheeler's FAIL-SAFE, and other novels. The novels really had little to do with the traditions of science fiction as a genre, and the film of ON THE BEACH has little to do with the traditions of the science fiction film. Neither does the last word in end-of-the-world films, Kubrick's DR. STRANGELOVE: OR, HOW I LEARNED TO STOP WORRYING AND LOVE THE BOMB. This film, based on a novel called RED ALERT by Peter George (a novel which, incidentally, antedated the more famous FAIL-SAFE on the same theme), is really a sixties film on a fifties theme, a cynical put-down of the Nevil Shute-Norman Cousine-Philip Wylie brand of desperation. The liberal hope for reform is replaced by the radical acceptance of annihilation, and the film represents in many ways a turning point in American intellectual thought--but not in the history of the science fiction film, which has seldom been noted for its intellectual values.

Kubrick did move solidly into the realm of science fiction with his next film, however. 2001: SPACE ODYSSEY retained some of the apocalyptic satire of DR. STRANGELOVE, but only as one element in a technically brilliant <u>tour de force</u>

that, at least from the point of view of special effects, represents the peak of science fiction moviemaking. Based on a poetic short story, "Sentinel," by Arthur C. Clarke, the film (on which Clarke also worked) combines a number of the major motifs of science fiction--space travel, alien intelligence, cybernetics, evolution, even perhaps time travel--into a primarily mythic context that makes better use of the available resources of the film art than any previous science fiction film. Kubrick's most recent film, A CLOCKWORK ORANGE, is based on a dystopian novel by Anthony Burgess more in the tradition of 1984 and BRAVE NEW WORLD than of formulaic science fiction (though Burgess's basic idea--that of a future society practically run by teenage gangs--had been dealt with in a science fiction novel published several years earlier, TOMORROW AND TOMORROW, by Evan Hunter writing as "Hunt Collins"). Apart from the satirical trappings of a future society given to drugs and sexual decadence, the principle science fiction element in A CLOCKWORK ORANGE involves, as in 1984, not so much new advances in science as new applications of techniques already in existence--namely, behavioral conditioning. More even than in 2001, Kubrick here uses a science fiction situation for the purpose of throwing into sharp relief a more or less abstract philosophical problem concerning the creative-destructive aspect of human nature. Stated perhaps too simply, the problem is whether or not the destruction of any individual's free will is a morally acceptable response to human violence. The film is far more complex and intelligent than the comparatively bland and simplistic treatment of conditioning in the film version of 1984, but there is some question as to whether the science fiction element is a necessary one to present a problem that has been dealt with in less baroque terms by such writers as Dostoyevsky and Nietzsche.

Kubrick's films, while substantial works in their own right, are also part of a comparatively recent movement in the science fiction film, or perhaps more accurately, a move toward science fiction among serious filmmakers. The movement is twofold, involving both studio productions aimed at large audiences and more individualistic works of independent filmmakers. The studio efforts, which perhaps bear more resemblance to the science fiction films of the fifties (though done with far greater production values) include such exercises in special effects as FANTASTIC VOYAGE (with such unforgettable scenes a Raquel Welch being attacked by antibodies as she romps around in the bloodstream of a scientist); the hugely successful series of apocalyptic melodramas that began with PLANET OF THE APES; equally apocalyptic spinoffs from this series such as THE OMEGA MAN (which is the second filming of Richard Matheson's novel I AM LEGEND, the first having starred Vincent Price and titled THE LAST MAN ON EARTH); and an occasional film of some real quality, such as THE ANDROMEDA STRAIN, directed by Robert Wise, who had previously worked on another superior science fiction film, THE DAY THE EARTH STOOD STILL. The independent films tend to get inferior distribution and are generally more arcane than the studio efforts; more often than not, they are the work of people whose interest in film is far greater than their interest in science fiction. Thus, a movie such as Doug Trumbull's SILENT RUNNING combines Joan Baez songs, spectacular special effects, ecological homiletics, and a fine performance by Bruce Dern with a plot that is scarcely above comic-book level. THX-1138 is a more purely cinematic treatment of the theme of anti-utopia familiar from 1984, but also involves a greater feeling for the integrity of the science fiction aspect than does SILENT RUNNING. Other films, such as GLEN AND RANDA and Chris Marker's short LA JETEE (1962) are principally experiments in narrative techniques and character development, with science fiction only the basis for these experiments. LA JETEE, for example, is an attempt to construct a film almost entirely of still photographs; but the sense of movement is so adequately conveyed by these stills that it is easy to miss the moments when the film actually comes to life.

It is impossible in an article of this length to do any sort of justice to the topic at hand, and I am inevitably going to fail to mention favorite films of a large number of people (including myself). I have not done justice to the European science fiction film, for example, particularly to such fine British efforts as THE DAY THE EARTH CAUGHT FIRE or the movies based on the "Quatermass" television serials. Nor have I touched upon certain major trends in the field--computers in such films as THE FORBIN PROJECT and 2001, behavioral science in films like CHARLY (based on Daniel Keyes' short novel "Flowers for Algernon," which makes for an interesting comparison), THE MIND OF MR. SOAMES (which deals with a 30-year-old man who emerges from a lifelong coma with the mind of an infant), and of course A CLOCKWORK ORANGE. But rather than merely list films or indulge in idle speculation concerning the directions in which the field might be headed, it might be more useful here to take a brief look at how such films might be used in the classroom, and to zero in on a few films from the nineteen-fifties that are superior examples of what most of us traditionally regard as the science fiction film.

In most instances, there is little to be gained from teaching science fiction movies with an eye to discussing the major aspects of film art. The majority of such films make relatively little use of the techniques and resources available to the filmmaker, and what techniques they do employ tend to be rather traditional and better illustrated by films that have less to distract the viewer in terms of special effects. There are science fiction films that are superior examples of moviemaking, of course--we have already glanced at a few--but by and large we are dealing with a genre of popular art which is not characteristically interested in exploring the possibilities of the medium. Since they do constitute a form of popular art, it is probably better to deal with them as such--in the context of values they present and the society they reflect.

The science fiction film has always been a fascinating gauge of social concerns and values. As we have already seen, many of the films of the cold war period reflect a concern with the possible effects of a nuclear holocaust. Similarly, films of the youth-oriented sixties reflected the possible effects of the youth culture on society (IF, A CLOCKWORK ORANGE, GLEN AND RANDA). During the depression-ridden thirties, when moviegoers sought escape in Shirley Temple comedies and Busby Berkeley musicals, the science fiction film offered up its own kind of escape and hope for the future with THE SHAPE OF THINGS TO COME and LOST HORIZON. When the young United Nations was a topic of social concern, a number of science fiction films reflected the hope embodied in that institution by postulating an invasion of earth by alien intelligences and the subsequent uniting of all earthly governments against a common foe. A general popular suspicion of science and scientists is reflected again and again in films with mad scientists, blindly idealistic scientists, self-sacrificing scientists who experiment on themselves, and scientists of all sorts who meddle with things man is not meant to know.

Related to the social aspect of science fiction film is what might be called its morality play aspect. This is certainly at work in the things-man-was-not-meant-to-know and world-united-against-a-common-foe movies, but it also operates in subtler ways in other films as well. Often the value systems of two heroes will be placed in opposition, and the science fiction element used to provide the arena in which these value systems are tested. An obvious, if rather poor example of this is the 1958 film THE ATOMIC SUBMARINE (made when the phrase "atomic submarine" still conveyed overtones of science fiction). In this film, a pacifist scientist is placed in opposition to the militaristic officer of a submarine. The scientist accuses the officer of being a professional warmonger, and the officer accuses the scientist of being a coward. When they both are faced with an evil super-intelligent being from a flying saucer, they discover that each has skills the other needs, although the officer may come out slightly

ahead. When the monster is vanquished, the two men, now friends, speculate on whether others of its kind may appear, and the scientist comments that "as long as there are men like you," earth will be safe from invasion. Similar oppositions are at work in many other films of this type, including THE THING and a film that belies its bad title, THE NAVY vs. THE NIGHT MONSTERS. Only rarely will such a film take a discernible stand for one value system over another, as happens in the British fill FIVE MILLION YEARS TO EARTH (based on the TV serial "Quatermass and the Pit"), in which the military commander ignores the scientists to bring about disaster and his own destruction. Other films less concerned with value systems are apt to attach a tacky religious moral to a film that otherwise has little religious content. Both WAR OF THE WORLDS and DAY OF THE TRIFFIDS, superior from the point of view of adventure and special effects, wind up in churches with the heroes giving thanks to God for the discovery of means to vanquish the enemy (germs in WAR OF THE WORLDS and sea water in DAY OF THE TRIFFIDS), without considering that it was presumably the same God that visited the enemy upon us in the first place. THE INCREDIBLE SHRINKING MAN also calls upon religious revelation to resolve a plot (and a leading character) that is literally going nowhere: as the hero shrinks into oblivion, he suddenly becomes aware that everything in the universe, no matter how small, has a purpose. And calling on the viewers' religious motives is a common device for making alien value systems repugnant in those films in which such systems threaten to take over the earth: INVASION OF THE BODY SNATCHERS, VILLAGE OF THE DAMNED, and INVADERS FROM MARS all have the "possessed" characters make reference to how wonderful life is without the confusion of such emotional nonsense as religion.

Both the social value aspect and the morality aspect of the science fiction films reveal the extremely didactic and expository nature of this kind of film. Even 2001, for all its sophistication, seems more like an essay than a story; the use of Strauss's opening phrase of ALSO SPRACH ZARATHUSTRA as a theme is not mere coincidence, for the film does have notable relationships to the philosophy of Nietszche. SILENT RUNNING is a poor story but an often moving statement about ecology, just as Z.P.G. and the television movie THE LAST CHILD are primarily expositions of certain attitudes toward overpopulation and birth control. This is not surprising, since science fiction is essentially a didactic form of literature, and just as the science fiction film streamlines and stylizes the literary techniques of the literature, so does it streamline and stylize the rhetorical attitudes. It is for this reason that science fiction movies, from the point of view of the classroom teacher, are perhaps more valuable when discussing themes than when discussing techniques; such films are less likely to show up in classes on film-making than in classes on sociology, less useful in classes on literature than in classes on culture. Even within a literature class, the teacher is likely to find these films more useful in topical units concerning ecology, psychology, "future shock," and the like, than in units concerning film or drama.

To demonstrate this, it might be useful to look briefly at a few selected films and see how they might be applied in classroom situations.

Of all the ambitious and not-so-ambitious science fiction "space" movies (as opposed to monster movies) of the fifties, the one which would seem to be of most interest to the teacher of English literature is FORBIDDEN PLANET, directed by Fred Wilcox for MGM in 1956. The reason for this is quite simple: although the credits list Cyril Hume's screenplay as being based on a story by Irving Block and Allen Adler, the plot, characters, and mise en scene are lifted almost intact from Shakespeare's THE TEMPEST. Instead of a magic island, we have the "forbidden planet" Altair-4, where an exploratory expedition many years earlier vanished without

a trace; instead of the magician Prospero drawing his magical powers from the elements, we have Walter Pidgeon as a super-scientist named Morbius, who draws his remarkable scientific ability from the machines left by an extinct civilization. Morbius's daughter Altaira (played by Anne Francis) corresponds to Prospero's daughter Miranda, and like Miranda, she knows nothing of her father's past and has never seen another man. Ferdinand is Captain Adams of the Bellerophon, the ship sent to investigate the fate of the earlier expedition. Even Trinculo is present in the form of a comic cook played by Earl Holliman whose first love is lots of booze. Perhaps the most ingenious transformations, however, involve Ariel and Caliban. Ariel becomes Robby the Robot, Morbius's almost perfectly efficient servant and the first in a long line of "lovable" robots that were to appear in science fiction films and television for years to come (as in the LOST IN SPACE TV series or the movie SILENT RUNNING). Caliban, instead of being the offspring of a witch and a devil, is a "monster of the Id," a huge, ferocious, and invisible monster conjured up by Morbius's subconscious defenses and hostilities. Such a monster is made possible by the fact that Morbius has undergone a mind-expanding treatment at the machines of the ancient Krel civilization, a treatment which permitted the Krel (and now Morbius) to transfer any kind of energy to anywhere on Altair-4 solely by mental power. Neither Morbius nor the ancient Krel, however, had taken into account the destructive aspect of the subconscious, and the same sort of monster that wiped out all the other members of Morbius's expedition is what presumably destroyed the Krel civilization. The device is particularly well-suited to the conventions of the science-fiction cinema in a number of ways: it allows for a truly spectacular monster; it provides the central plot element of mystery and suspense; it allows for a kind of mad scientist but at the same time provides a device for constructing a plot which really has no human villain (as in the various invasion of earth pictures).

All of this is presented in a fast-moving story line supported by extravagant production values. The special effects are among the finest in the science fiction film, and were among the first to demonstrate that truly awe-inspiring images could be constructed that did not have to involve catastrophes or giant insects: the scenes of the visitors exploring the vast Krel machines that stretch away for miles in the interior of the planet are truly striking, and the one point at which the monster is made visible (because of all the firepower being directed at it) is chilling despite the almost baroque extravagance of the monster itself (which is depicted by animation, roaring and screeching in a kind of absurd parody of the MGM lion). Electronic music by Louis and Bebe Barron is actually used to good effect, and not merely to create an unjustified edginess on the part of the audience, as such effects are so often used. The plot is unveiled as a series of deepening mysteries which can only be explained when the ship's doctor of the Bellerophon undergoes the same treatment as Morbius (sacrificing himself in the process because he had not "worked out" on the machines earlier) and is able to explain everything with his vastly increased intelligence before he dies.

Interestingly, the film is not the work of professional science fiction writers and producers, but rather of members of the Hollywood establishment. Perhaps because of this, not much time is spent trying to scientifically justify the various marvels involved (although enough such exposition is present to allow the viewer to extrapolate the details for himself), and it is just as easy to approach the film from the point of view of myth or fairy tale as from the point of view of scientific speculation. As a work of film art, it has its drawbacks. The characters and dialogue are flat, the sets often too stagy, the costumes rather sterotyped. Some of the extravagance of the production is unnecessary and distracting; the Bellerophon, for example, is far too large for its relatively small crew. But as science fiction film, it is a superior example of the genre, and

one that--especially if regarded alongside THE TEMPEST--is excellent for demonstrating the literary relations of science fiction movies and the manner in which a familiar story can be transmuted into the terms of generic conventions.

If FORBIDDEN PLANET stands as a superior example of the "other worlds" type of science fiction film, an equally effective example of the "invasion of earth" theme is represented by Don Siegel's 1956 INVASION OF THE BODY SNATCHERS. This film, too, is the work of professional moviemakers rather than science fiction addicts; perhaps the unawareness of these professionals of the cliches of the genre causes them to instill in them a kind of vitality that is often absent from the standard science fiction "B" movie. INVASION OF THE BODY SNATCHERS is a fairly close adaptation of THE BODY SNATCHERS, a novel by Jack Finney, a fantasy writer of the SATURDAY EVENING POST sort who occasionally would dabble in science fiction themes. It concerns a small California town whose population is gradually replaced by duplicates grown in giant pods from outer space. The duplicate humans resemble their originals in every respect, except that they lack emotions and recognizable moral values. The ultimate scheme of the pod people is, of course, to take over the entire earth. In opposition to them is a young doctor played by Kevin McCarthy, who (because of studio pressure for a "happy" ending) narrates the entire film in flashback from a hospital.

Lacking in elaborate special effects, futuristic settings, or even a recognizable "monster," INVASION OF THE BODY SNATCHERS succeeds very well in creating an atmosphere of suspense and horror within its limited resources. The effect of the film depends largely upon its depiction of idyllic small town life in the village of Santa Mira and the gradual intrusion of horror into this setting--without creating so much as a ripple in the surface appearance of the town. The element of horror is introduced slowly and subtly. Kevin McCarthy returns home after a short trip to find nothing changed, but he encounters a number of people who sense something is wrong, such as a little girl who complains that her mother "isn't my mother anymore." McCarthy manages to ignore these odd complaints until a friend of his, played by King Vidor, reveals to him a half-formed duplicate of Vidor himself, still in the pod. More of the pods are discovered, and more of the townspeople replaced by automatons, until finally only McCarthy and his girlfriend, played by Dana Wynter, are left, looking out of a second-floor window on the placid daily life on Santa Mira--only now with the knowledge that none of the townspeople on the street below are human. They are discovered and forced to flee. At first they anesthetize their captors with a hypodermic syringe, then attempt to pass themselves off as "pod-people" on the streets of the town. But Dana Wynter, witnessing an auto accident, screams and reveals her human emotions. Forced to go into hiding, they occupy an abandoned tunnel and sleep. When McCarthy awakes, Dana Wynter's emotionless kiss reveals to him that she too has changed--and in desperation he runs out onto the freeway, trying to flag down passing cars and trucks to tell of the invasion. This penultimate sequence is presented as a vivid nightmare: McCarthy almost seems to be the last man on earth, for the passing motorists, even if they are not pod people, are equally anonymous and unconcerned. At one point McCarthy jumps on the rear bumper of a truck, only to discover that the truck is delivering more pods. There seems no way out.

There is, of course. The Allied Artists studio would not permit Siegel to end the film quite so apocalyptically, so a "frame" had to be provided for the story of the film, and as we see it in its final version, McCarthy is in a hospital telling the tale to doctors who won't believe him--until a fortuitous phone call reveals that there really <u>are</u> pods. At once the Army springs into action, and the viewer is left with the strong implication that all will be well.

This basic plot is not new in the literature of science fiction, of course; the most famous treatment is probably Robert Heinlein's THE PUPPET MASTERS. Nor is it especially new in the science fiction film; William Cameron Menzies' INVADERS FROM MARS had dealt with essentially the same plot in 1953, and the horror of becoming an automaton had been dealt with in science fiction terms in Fritz Lang's METROPOLIS in 1926, and even to some extent in DRACULA, with the characterization of Dracula's wives. In many treatments of this theme--and INVASION OF THE BODY SNATCHERS is included here--the emotionless beings are used as spokesmen for a system of amoral "scientific" values and politics. Such arguments are presented more than once to Kevin McCarthy in BODY SNATCHERS. The pod society's values sound familiar--there is no crime or disorder, there is greater efficiency, there is no disease or hunger or greed, and everyone does his job smoothly and efficiently without complaining. These are, of course, the arguments of totalitarianism, and thus an ideological approach to INVASION OF THE BODY SNATCHERS can be a rewarding one. Like many science fiction films, it concerns the loss of individualism in modern society, the ongoing conflict between the passionate individual and the pod people--but it does this by means of a particularly vivid metaphor and with some striking sequences. Questions concerning the value of individualism, the function of society, group pressures, and conformity can be dealt with extensively on the basis of this film.

Though FORBIDDEN PLANET and INVASION OF THE BODY SNATCHERS represent two familiar genres of science fiction--space exploration and invasions of earth--the most familiar genre is only marginally represented by each of them. This, of course, is the monster film, the kind of film that almost single-handedly gave science fiction a bad name in the fifties. Few of these films are useful as anything other than period pieces, but two of the earliest--THE THING and THEM!--are worth discussing briefly. Both films use their monsters sparingly and concentrate on developing an atmosphere of mystery and suspense. In fact, THEM!, directed by Gordon Douglas in 1954, is constructed almost like a murder mystery, with James Whitmore as an investigator who pieces together clues to apparently insoluble crimes. The opening scene of a little girl, crazed with fear, stumbling along a desert highway muttering "Them! Them!" is deservedly famous. At once it establishes the tone of the movie, introduces the element of mystery and the unknown, presents intense fear (all the more chilling because the viewer has no idea what the source of the fear is). Other clues mount up. A trailer is found twisted and generally trashed, with a trail of sugar leading from the site. Other disasters are found, each time with the trail of sugar. Mysterious high-pitched noises are heard in the desert. The audience is kept in the dark almost to the point of irritation. At one point, we watch a man in his shack radioing information while a wind arises and the eerie sound-effects that tell us of the monster rise in volume. The shack is ripped into, and an expression of terror comes across the man's face, but we still do not see the monsters. The film is perhaps most valuable for what it reveals about narrative technique, and for its creation of atmosphere.

THE THING, directed by Christian Nyby (and perhaps in part by Howard Hawks) in 1951, also makes use of the monster as an imminent presence more than as a central visual image. Based on a classic John W. Campbell short story called "Who Goes There?" the film plays havoc with the short story (and thus is unpopular with many science fiction purists) but develops quite well along its own lines. It makes use, for example, of the pragmatist-idealist conflict mentioned earlier in connection with THE ATOMIC SUBMARINE. As in that inferior film, the scientists are the idealists, wanting to communicate with the creature and study it, while the practical minded militarists merely try to figure out ways to destroy it. In this one, the militarists obviously win out in the end

(although if one pays close attention to the plot, he can see that they do so largely through their own mistakes). THE THING itself is an intelligent, carrot-like life form that is found by a team of scientists and explorers near the North Pole--frozen in a chunk of ice after having landed in a flying saucer which the scientists inadvertently destroy. The beast accidentally becomes thawed and starts rampaging about until it is finally electrocuted at the end. Like THEM!, the film is useful for the manner in which the plot unfolds, for the creation of atmosphere (the isolation and confinement of an arctic post is a brilliant setting for such a plot), and in addition for the scientist-militarist conflict.

This is only a fleeting glimpse at the science fiction film at best, of course, and anyone wishing to learn much about these films will have to subject himself to watching a great many of them. There is little scholarship on the subject so far, but it is daily gaining respectability, and even the worst films of the fifties can now be viewed as minor social documents. 2001, however, may have been a turning point in the science fiction films combined--and the topic is now fair game for some college and high school courses. Certainly, anyone interested in the various genres of popular film (westerns, musicals, mysteries, etc.) cannot afford to ignore this kind of movie. The science fiction film has only recently begun to "grow up," but there is reason to believe its growth will be rapid and significant in the next few years, and it behooves one interested in this growth to know something of the backgrounds of the genre.

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A NOTE ON RENTALS: Most of the films discussed in this article can be obtained for classroom use through one of several film distribution agencies, with rentals ranging from around thirty dollars (for FORBIDDEN PLANET) to around two hundred and fifty dollars (for 2001). Prices vary according to the film itself, the size of the audience, and the purpose of the showing, but the lowest rentals are nearly always for classroom use. It is suggested that anyone wishing to obtain science fiction films write for catalogues from some of these distributors. Two who have especially attractive selections of science fiction films are listed below.

Audio Brandon, 34 MacQueston Parkway South, Mount Vernon, N.Y. 10550
Films, Inc., 5625 Hollywood Boulevard, Hollywood, California 90028

Sociology in Adolescent Science Fiction

Jean Greenlaw Root, University of Georgia

It was 3:30 on a hot afternoon late in the school year. The dismissal bell had rung, the assembly program was over, and the expected reaction was that the one hundred junior high school students would go tearing out of the building. Much to this speaker's surprise, seventeen students came up to the stage and began an animated discussion. They had been caught by one sentence used in the speech--"I'm a science fiction fan, myself." So were these seventeen students!

For forty-five minutes there was non-stop talking. We mentioned favorite books; argued about who was the best science fiction writer; discussed the multiple levels of understanding one can find in a book, such as Madeleine L'Engle's A WRINKLE IN TIME; and, we explored the range of subject matter to be found in science fiction. Our impromptu seminar came to a close only because I had to leave for another meeting. I was escorted to my car by an entourage of excited, exciting kids who were really turned on to reading and who knew how to extract significant meaning from a book.

Above average, college-bound students, you are thinking. Children whose parents had exposed them to a wide variety of literature and experience. Absolutely not! These students were mainly from the wrong side of town; they had very few "advantages." But, they were lucky. They were lucky because they had discovered a literature that spoke to them. They were well aware of the problems of today's society and they had found a literature that considered these problems. And, these students were also stimulated by the quality of the writing, the interesting plots, and the enjoyment to be derived from reading science fiction. Were these students atypical? I think not.

A Search for Values. Today's youth are in search of change. They are asking questions and challenging the world to give answers that can be accepted. They are searching for an ideal, for honor within society and for honorable personal achievement. This may be part of the reason that more youth are reading science fiction.

The audience for science fiction is growing and the paperback market is expanding to meet the demand. There are high school and college courses offered in science fiction and texts are becoming available. The older authors are dropping out of the field and new ones who write mainly of social ills are taking their place. Science fiction is the only literature being written today that makes large statements about our transitional society.

Youth is disillusioned with the present order; with war, racism, poverty, intolerance, and injustice. They look for change in the social order or in human nature itself. Science fiction offers both. Robert Heinlein's STRANGER IN A STRANGE LAND is considered by some critics as a major work expressing this philosophy. This story tells of a man who returns from Mars to Earth and creates a religion in which men learn to transcend earth's ties and evolve to a higher plane of existence of which Martians are capable. A new paradise will emerge. Heinlein did not write this as a junior novel, but youth have taken it for their own.

In response to the new audience contemporary science fiction has outgrown the cliches and is searching for universally relevant themes. Many of the new themes are sociological, anthropological or psychological in nature.

Science fiction deals with men as well as machines and where classical values hold that human nature is enduring, unchanging and uniform; science fiction holds that it is mutable, complex and differentiated. Many of the values such as honor, loyalty, bravery, fortitude, self-sacrifice, honesty and integrity will be as important in the reaches of the Galaxy as they are on earth, but man will change and will shape his own destiny through this change. (J.W. Campbell, "Science Fiction and the Opinion of the Universe," SATURDAY REVIEW, May 12, 1956, p. 10. Robert Heinlein, "Ray Guns and Rocket Ships," READING ABOUT CHILDREN'S LITERATURE, E.R. Robinson, ed., NY: McKay, 1966, p. 370)

Clifford D. Simak considers this aspect of society in TIME AND AGAIN. In this book, man has stretched himself through the limitless galaxy. He holds tenuous control through a ruthless supression of insidious form -- he refuses to grant dignity or worth to any creature but man. The androids and robots, which enable man to effect marvelous achievements, are counted as nothing. Life on other planets is deemed worthless. Only man has dignity and value. One man, however, Asher Sutton, discovers destiny. His discovery leads him to write a book that begins:

> We are not alone.
> No one ever is alone.
> Not since the first faint stirring of the first flicker of life on the first planet in the galaxy that knew the quickening of life, has there ever been a single entity that walked or crawled or slithered down the path of life alone?
> (Clifford D. Simak, TIME AND AGAIN, NY: Simon & Schuster, 1951, p. 105)

An idea -- the idea that all living things have a destiny; that even earthworms and heather have meaning, revolutionizes the galaxy.

The theme is one of social consequence. It is readily analogous to racial discrimination on earth and a direct statement of the attitude that prevails concerning possible life on other planets. Though written in 1951, the theme of this book is timely, and, unfortunately probably timeless.

The plot is well-constructed and fast-paced. There is enough adventure and suspense to hold any reader -- even the one who does not grasp the social implications on first perusal.

The writing style is of the first order.

> He went carefully down the stairs, trailing his hand along the bannister to guide him, and when he reached the massive living space he waited, standing stock-still so that his eyes might become accustomed to the deeper dark that crouched there like lairing animals.
> (Clifford D. Simak, TIME AND AGAIN, NY: Simon & Schuster, 1951, p. 122)

Such composition would allow inclusion of this book in even the most stringently style-conscious curriculum. The blend of familiar language with evocative phases such as "crouched there like lairing animals." identifies Simak as a polished and proficient writer. TIME AND AGAIN would be a valuable and enjoyable form of study in the junior high school literature program.

Sociological Implications. Society impinges upon children as thoroughly and drastically as upon adults. Children are in and of the world and their increasing sophistication demands that authors present material which is per-

tinent to the lives these children lead. This demand is often fulfilled in science fiction.

Some of the sociological concerns of our youth include intolerance and prejudice; the influence of technology on man; overpopulation; ecology; the impact of medicine on society; war vs. peace; and love vs. hate. Each of these stated concerns will be discussed and suggestions made of science fiction books that would be appropriate to read for those interested in each topic.

Intolerance. It is important to remember that intolerance is not limited to confrontations between blacks and whites. It is a pervasive emotion that infests mankind and causes him to suspect that which he does not understand or that which is different from him. Science fiction authors have explored the realms of intolerance and their writings often express the need for acceptance and understanding of all forms of life.

Heinlein creates a tale of a "family" of earthmen who possess the characteristic of longevity. These METHUSELAH'S CHILDREN have been forced to adopt multiple successive identities to hide their differences, but finally discovered, they are driven from earth to become outcasts in space. Earthmen cannot tolerate those who are different, particularly those who enjoy a difference that enables them to be superior to normal men.

As in Simak's previously mentioned, TIME AND AGAIN, Robert Silverberg writes of the supression of androids and robots by man. In TOWER OF GLASS the plot revolves about a man who has become a god to the robots and androids and their strategy to overthrow mankind and to force equal acceptance. An interesting subplot reveals the prejudice and social class distinctions present even among the androids and robots. It seems that no form of life is truly devoid of intolerance.

Ray Bradbury and A.M. Lightner each write of social discrimination. In Bradbury's MARTIAN CHRONICLES the story "Way in the Middle of the Air" is of blacks leaving a small southern town to colonize on Mars. The story shows conflict between the blacks and whites of the town and reveals the ambivilance that exists for the whites when all the blacks leave the town. There is much impetus for thinking and discussion from this story. Lightner's THE DAY OF THE DRONES presents a reverse social conflict. In this tale, set in Africa, a society bases its judgment of people and controls their possibilities for success on a standard of blackness. The blacker one is the greater his chances for recognition. In fact, very light or white children are killed at birth. The possibility of resolution proposed in this story makes it an interesting and sociologically important book.

Many other books have been written that include, as a major or partial theme, the need for tolerance if we are to develop as humane societies. This concern is ever-present and the adolescent is searching for answers that might be germinated from involvement in science fiction.

Technology. Technology surrounds us. The society which we have developed forces us to become more and more dependent upon technology and many leaders in diverse fields have expressed fear that man is becoming subservient to machines. Technology, in and of itself, is not at fault. The concern is how technology is used and the philosophy we imploy in its use. Ben Bova has written a powerful novel that incorporates the sociological aspects of technology, overpopulation, war vs. peace and governmental control. THE DUELING MACHINE is a well written expression of an author's attempt to alert us to the dangers inherent in becoming conformists in a technological society. Bova approaches the problem of conformism

to technology in another book also, THE WEATHERMAKERS.

Overpopulation. The threat of the overpopulation of the Earth serves as a stimulus for the plots of two books by Robert Heinlein. FARMER IN THE SKY tells of the colonization of Ganymede as an attempt to disperse a larger number of people from Earth and to create a source of supply of food for the Earth. This is the story of one family of colonists and of the courage, skill and special spirit that is required to be pioneers in an alien environment. Through this family we learn of the crisis that faces Earth because of overpopulation and underproduction and of the struggle for a new colony to become self-sufficient as well as a source of aid for Earth.

Heinlein's TIME FOR THE STARS combines a study of telepathy with a desperate search for inhabitable planets. Earth's population is expanding at an alarming rate and new planets suitable for colonization must be found. Because the search will take many years and there are communications problems caused by time lapse over space, a special crew must be selected for the space exploration. Identical twins with telepathic capabilities are located, lots are drawn, and two teams are formed. One half of each twin pair goes into space, the other twin stays at home to act as a receiver. The story line is intriguing and the implications of overpopulation are well developed.

Ecology. Ecology has become the maxim of the decade. Man is in danger of destroying his own Earth through unthinking and/or uncaring action. John Christopher writes of a world that has become completely barren of all grasses, in NO BLADE OF GRASS. A virus developed in China and destroyed all grass plants and it mutates so quickly man cannot control it. In time, all of Earth is devoid of all plants of the grass family, which means that most of the world will starve. Some farmers see this as only fitting because for years man treated the earth as if it were a piggy-bank to be raided rather than as the giver of life itself. Not much hope is given for the future of man, but those who survive have more appreciation for the earth and the need to protect it.

DUNE, by Frank Herbert, is another powerfully written statement of ecology as well as being a fascinating tale. Dune is a harsh desert planet; a forbidding world where water is more precious than jewels, where, in fact, water is wealth. The necessity for conservation is not debated -- it is the difference between life and death. A story of glactic intrigue is woven within this ecological setting.

The problems that accrue when man rushes ahead on a project in nature without thought of the possible side effects is the theme and plot of A.M. Lightner's THE THURSDAY TOADS. A newly colonized planet teems with vile toads whose sting causes death. Against the wishes of some scientists who request more research about the toads, all the forces of modern science are brought to bear on a method to destroy the toads. Only after all the toads are eliminated is the discovery made that the toad's venom is a fountain of youth. Those who survive its sting live youthful lives to the age of at least 200. Time, study and consideration of the total realm of nature's cycle might have made a difference in man's existence.

As in other aspects of sociological import, science fiction writers are urging caution, and thorough study before drastic moves are made that effect the ecology. Extreme examples are often used to vividly bring home the point.

Medicine. Medicine has lately taken on the aura of science fiction with

its transplants, the study of telepathy and ESP, its attempt to create life outside the body, and its attempt to find ways of placing people in suspended animation for years. These occurrences which we now read about in the daily paper have been the subject of science fiction for years.

Allen Nourse, a reputable surgeon, has written many science fiction books with medical settings. THE UNIVERSE BETWEEN includes studies of telepathy and teleportation. STAR SURGEON tells of an alien's struggle to become a doctor in a situation where only Earthmen become the doctors for the galactic confederation. THE MERCY MEN live and work beyond the pale of society in the forbidden underground laboratories of the Hoffman Medical Center. They have become guinea pigs for medical research in ESP, telepathy, etc. These books and others by Nourse highlight the medical world in science fiction.

Robert Heinlein's latest novel, I WILL FEAR NO EVIL, explores the possibilities and the effects of a brain transplant. This extensive and involved story will appeal to adolescents and adults.

War vs. Peace. There is probably no topic about which youth is more concerned than that of war and peace. Those who are adolescents today have lived constantly in a milieu of war. Our statesmen speak unceasingly of peace while thousands of people continue to die war-caused deaths. This dual situation is unacceptable to a large portion of our society.

War and the effects of war on man and society serves as the theme for numerous science fiction novels. Andre Norton is a prolific author vitally concerned with the humanness and humaneness of man. THE BEAST MASTER emphasizes the personal tragedy of war. Here is an Earthman who must rebuild his whole existence and philosophy on another planet because Earth has been totally destroyed in a galactic war. The emphasis is on one man's reaction to war and its effects. Other Norton books that include war vs. peace as a theme or plot are DARK PIPER, LORD OF THUNDER, SEA SEIGE, and VICTORY ON JANUS.

THE CITY UNDER GROUND has been created as a result of a nuclear war. Suzanne Martel writes beautifully of a society that evolved through the necessity of constricted living. The original leaders developed a completely conforming social system to permit the existence of a tolerable life underground in confined quarters. The society is a negation of individualism and is a direct result of war. The conclusion of the story leaves one with the hope that a newer and better life might be found with the realization that man has a chance to begin again on earth.

Love vs. Hate. This generation professes to be the generation of love. Love vs. hate is the essential element of two fine science fiction novels.

THE FORGOTTEN DOOR, by Alexander Key, introduces us to Jon who has fallen into a strange world through a hole in space. Jon is a child who is open and loving and he encounters a world populated by hostile, suspicious people. His struggle to survive, his interaction with an accepting family, and his final excape to his own world combine to produce a warm and meaningful experience for the reader. This book can be read and appreciated by all from nine years of age through adulthood. The levels of understanding are legion and the book can reach out and touch readers of myriad experience and knowledge.

The Newbery Award winning novel, A WRINKLE IN TIME by Madeleine L'Engle is another piece of fiction that has as its theme the power of love to conquer evil. A powerful evil, described as a great shadow and referred to as "IT," is in

control of certain planets and is beginning to overshadow the earth. As the plot unfolds one recognizes that this evil is that of conformity and is expressed through great waves of hate for those who do not fit the accepted mold. It is eventually defeated only by the ability of one individual to utilize her unique powers and by the ability of love to conquer hate. This fascinating story presents a powerful theme and enmeshes it in a fast-paced, gripping plot.

Conclusion. The appeal of science fiction to adolescent readers has been linked to their natural desire for interesting, adventurous and well-written literature and their quest for answers to sociological considerations.

This article can best close with a most cogent and moving statement of a reason for writing science fiction and a provocative invitation to readers of science fiction. It is made by Ray Bradbury in an essay entitled "Science Fiction: Why Bother?" in a pamphlet published and distributed free by Bantam Books.

> But the time for laughter is over. And the serious business of making do with science, and machines extruded from those sciences, is upon us. Science-fiction is the effort to examine each possible machine before it is born, during the time it is being birthed, and while it is destroying or rebuilding us in new shapes of theology or politics or personal, fractured family relationships.
>
> I must guess at the years ahead. If I guess well, if I warn accurately, I can help myself. Which means, in the end, help you to understand the mass-media which suddenly swarm about us, to examine the fiery star, the rocket, which leads us into deep Space, there to become immortal.
>
> I will, then, write such stories as will cast shadows on the walls for us to see and choose among. This way to Doom. That way to, if we wish, Life everlasting.
>
> I will not imagine Heavens for us to inhabit after death but encourage us to actually go and live in those heavens, near those stars we must some day reach with our starships.
>
> For, in end, it will do us no good to unpollute our streams, our air, our cities, it will do us no good to settle all our uncivil strifes, if finally we die upon this Earth the day our Sun Dies.
>
> Plato told us of his dream of a Republic.
>
> Science fiction writers imagine similar republics of steel and electricity and elemental fires that least and bake us in new transmigrations of flesh. In this particular basement world of a lost solar system, we are the Thing which tries to know itself and know itself better with the extensions of ourselves which are our technologies, become our senses, with greater eyes, ears, mouths to speak with, and, God willing, better hearts that will last us two billion years of counting.
>
> I make these sums in my fictions every day of my life. Come, count with me. Exist. More than exist, survive. More than survive, live in some half-glory when we have made do with our machines and re-exalted mankind. Can you name a greater goal than this?
>
> My outrageous declaration is done.
>
> My most unhumble proofs are so offered you.
>
> Judge and forgive if you can. Go and think of what I have said.
>
> You are science-fictional peoples living in a science-fictional age.
>
> How else would you have me write of you, than as I have written?

(Ray Bradbury, "Science Fiction: Why Bother?," TEACHER'S GUIDE SCIENCE FICTION, NY: Bantam Books, pp. 4,5)

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USING OLD RADIO PROGRAMS TO TEACH SCIENCE FICTION

Some English teachers may be unaware of the number of tape-recordings of old radio shows that are available to them for class use. Granting the dubious use in any class for any reason for shows like "Our Miss Brooks," "Stella Dallas," "Boston Blackie," or "The Life of Riley," many radio shows could be used to illustrate ideas and approaches often used in English. For example, comedy and the nature of humor could be illustrated by radio classics like "Bob and Ray," "Fred Allen," "Vic and Sade," or "Jack Benny." Elements of suspense and climax could be demonstrated through radio shows like "Suspense," "Inner Sanctum," that fabulous (it still sounds great) series "I Love a Mystery," and "Dimension X." Western stereotypes and western plots could be taught through old tapes of "Gunsmoke" or "Have Gun, Will Travel" or "Tom Mix." Drama could be taught through the acting (or over-acting) of radio soap-operas like "Young Widder Brown" or "Our Gal Sunday" or "Ma Perkins." Drama could also be taught through a number of first class radio shows like "One Man's Family," "Dragnet," or "Bold Venture." One of the most exciting uses of old radio tapes comes from using them in conjunction with a play or a short story or a novel or a film and a taped radio presentation of the same work in an aural format. For example, short stories like "The Birds" (also in radio form on "Escape," 30 minutes) or "The Bruce-Partington Plans" (the Sherlock Holmes story on "Sherlock Holmes," with Basil Rathbone, 30 minutes" or "Leinenger Versus the Ants" (on "Suspense," with William Conrad, 25 minutes). Plays and films and novels like THE MALTESE FALCON (radio version with Humphrey Bogart on "Academy Award Theatre," 30 minutes), TO HAVE AND HAVE NOT (radio version on "Lux Radio Theatre," with Humphrey Bogart and Lauren Bacall, 60 minutes), WAR OF THE WORLDS (radio version on the "Mercury Theatre," the famous or infamous 1938 scare show by Orson Welles), BRIEF ENCOUNTER ("Theatre of the Air" with Trevor Howard, 30 minutes), or A STAR IS BORN ("Gulf Screen Guild Theatre," 30 minutes).

And where can you get radio tapes like these (and many more)? Several outlets handle them, but two particularly reliable ones are MAR-BREN SOUND CO., 420 Pelham Road, Rochester, N.Y. 14610 and RADIO RERUNS, P.O. Box 724, Redmond, Washington 98052. The original catalogues may cost you $1.00 apiece, but they're fascinating dividends in themselves, and both companies will let you apply the $1.00 on your first order.

The radio-tapes from these two companies are particularly rich in materials for science fiction. Below are just a few of the many tapes available and applicable to the study of science fiction.

"Mars Is Heaven," DIMENSION X, a radio version (30 min.) of Ray Bradbury's "The Third Expedition" from his MARTIAN CHRONICLES. A spaceship lands on Mars and the spacemen discover the planet exactly resembles their home towns. (MAR-BREN)

"The Country of the Blind," ESCAPE, H.G. Wells' story of a strange land and even stranger people, 25 min. (MAR-BREN)

"Behind the Locked Doors," MYSTERIOUS TRAVELER (30 min.), a genuinely scary tale of an archeologist and his strange discovery along the Colorado River. (MAR-BREN)

"August Heat," SUSPENSE (30 min.), William Harvey's great and widely anthologized tale of suspense in a really fine radio version with Ronald Coleman. (MAR-BREN)

"Zero Hour," X MINUS ONE (15 min.), a dramatization of Ray Bradbury's story of the same title in his ILLUSTRATED MAN of the takeover of the world by little children. (MAR-BREN)

BUCK ROGERS IN THE 25th CENTURY, episodes from 1939, running to more than 3 hours of the most famous comic and radio hero of space fiction. (MAR-BREN)

"And the Moon Be Still as Bright," DIMENSION X (30 min.), a dramatization of the story with the same title from Ray Bradbury's MARTIAN CHRONICLES. A spaceman goes berserk when he watches his shipmates pillage and rape Mars as they have already ruined the Earth. A beautiful radio show and a good tape. (MAR-BREN)

"The Day the Earth Stood Still," LUX RADIO THEATRE (50 min.). A rocket ship comes to Earth and its sole occupant tries to warn the Earth that it must do away with weapons and war. (MAR-BREN)

"It Happened Tomorrow," ACADEMY AWARD (30 min.), marginally science fiction and probably more fantasy story of a reporter who finds an edition of tomorrow's newspaper, but a nice tale by an account. Stars Eddie Bracken. (MAR-BREN)

"Universe," DIMENSION X (30 min.). Aboard a spaceship lives an entire civilization bound for what they know not since everyone aboard is unaware of why the voyage was begun. (MAR-BREN)

"The Time Machine," ESCAPE (30 min.). H.G. Wells' novel about the inventor who develops a machine to send him forward in time. (MAR-BREN)

"Neanderthal," LIGHTS OUT (25 min.). Two men and a woman plunge over a cliff in their car and discover as they awake that they have gone back 50,000 years in time. (MAR-BREN)

"Plan X," SUSPENSE (30 min.), a funny and touching story starring Jack Benny as as a Martian plant worker chosen to greet the first expedition from Earth. (MAR-BREN)

"Stairway to Heaven," LUX RADIO THEATRE (60 min.), the fantasy tale of an airman given a second chance to live, stars David Niven. (RADIO RERUNS)

"Death Takes a Holiday," THEATRE OF THE AIR (30 min.), certainly more fantasy than anything else, but still a fascinating story of the personification of Death as he visits the Earth to discover why man fears him. (RADIO RERUNS)

Any number of series could be used in connection with teaching science fiction. Nearly all the shows from DIMENSION X, X MINUS ONE, and MYSTERIOUS TRAVELER could be used, and many episodes from SUSPENSE and INNER SANCTUM and ESCAPE and LIGHTS OUT would prove exciting breaks in a classroom. Also, the entire SHADOW series might be fun to consider (hokey as much of it seems today to teachers, students like it better than teachers would ever expect), and almost anything from I LOVE A MYSTERY works, particularly episodes from the most famous of all I LOVE A MYSTERY stories, "The Temple of Vampires." Science fiction it may not be, but horrifying and scary and compelling it still is.

"WHAT'S A HEAVEN FOR?" or; SCIENCE FICTION IN THE JUNIOR HIGH SCHOOL

Kathryn Whalen, Madison Park School, Phoenix

Have you ever thought of taking your junior high students on a drugless, mind expanding trip? Of giving them the experience of sharing the excitement and wonder of looking at themselves and their world from a different point in time than now and different place in the universe than here? Of bringing the past into the future? Of taking them out of themselves and today's world to better develop their sense of appreciation for the ingenuity and free spirit of man? Of giving them a glimpse of their own great potential under any circumstances? If you would like to unlock the universe, then do a unit on science fiction with your junior high students.

Why a unit on science fiction? Why not? Any literary convention, any philosophy that can be taught in other units can be taught in science fiction, plus much, much more. Science fiction may be fantastical in many ways, but it also presents a probable world for the young people. With the advent of satellites, rockets, men on the moon, who are we to say that this fantastical world may never exist. Too many fantasies have come into being. This age of technologic achievement has given us many wonderful things, but it may also have created the means to destroy us if we don't prepare to meet the challenge. Life in underground cities because the earth is no longer fit to be inhabited, and interplanetary exploration and migration are no longer the firments of some science fiction's writers imagination, but a stern reality in today's polluted, overpopulated world. Psychological and philosophical pressures are great, but by taking the students away from here and now for a short while, they can begin to sense that there are not only solutions to today's problems, but also excitement and challenge to the mind that allow it to expand and encompass new ideas.

But what is science fiction? There are perhaps as many definitions as there are science fiction buffs. However, the very name science fiction implies two ingredients. . .an imaginative story idea based upon real science and/or technology and a well told story about believable people. This, of course, is not all. In addition there are many other qualities or dimensions that make science fiction so popular and so much fun to work with. In his introduction to NOW BEGINS TOMORROW, Damon Knight lists some of these as they have been developed by specific authors. They include, "technical genius, a gifted sense of the dramatic, very subtle wit, pyrotechnic inventions, a nightmare world, pathos, deep perception, human insights, hynoptic story telling, intellect, grotesquerie, and magical new systems of philosophy. Science fiction is exciting, explosive, provocative, and reality. What more does one need to capture and hold the interest of any eager young student?

Junior high literature is often centered around the theme of identification. . . getting to know yourself, your family, your friends, the world, especially your world and your place in it. Madeline L'Engle does a capital job of this in her A WRINKLE IN TIME. Margaret Murry has a very poor self image. She often is in difficulty at school, and deeply resents the gossip that her father has run off and left her family while deep in her heart she knows that he is off on a very secret mission for the government that does not allow him to contact his family. Through a special set of circumstances, Meg (Margaret), her younger brother Charles, and Cal (Calvin), one of the top students and star athletes at school are taken through a different dimension in time to search for her father and bring him home. Meg not only finds her father, but more importantly finds herself. She realizes that she is a worthwhile needed human being. All this plus Tesseract, a

fifth dimension in time, and some delightful and charming shape changing witches who guide the young people on their perilous journey.

Learning to respect the rights of others is often a difficult thing for young people to do, especially if the other person is "different". Ray Bradbury illustrates this very poignantly in his short story "All Summer in a Day." The setting is very definitely science fiction for the scene is Venus where it rains constantly, literally night and day without stopping, except for one hour in seven years when the rain stops and the sun shines for one hour. The children in Margot's class are not old enough to remember the sun, and as the time approaches, their teacher very carefully prepares them for this great moment when the sun will shine. Margot was born on earth and longingly remembers the sun and the sunshine. She is very unhappy on Venus and stays to herself. When Margot writes or talks about the sun, the children taunt her for they will not accept the fact that she has seen the sun and they haven't. As the time approaches for the sun to shine, the teacher leaves the room. The children tease Margot cruelly, telling her the sun won't shine that day. Then they shove her into the closet and lock the door. The teacher returns telling the children to get ready for it is about time to go out. She does not miss Margot. The children have a delicious time in the sun, feeling its warmth and color, running and shouting for an hour. Suddenly one of the girls feels a drop of rain and their wonderful hour is over, and once again it is the ceaseless fall of rain. As the children re-enter the underground, all buildings are underground on Venus, they ask if it will be another seven years. As the teacher answers yes, one of the girls suddenly remembers Margot, and the story ends as they slowly unlock the closet door. Consideration for others, a theme for all times, takes place in the setting of another planet that man has used his ingenuity to be able to physically adapt to.

Since characterization is vital to science fiction, there is much appropriate science fiction literature to help junior high students on their way to becoming aware of these very necessary insights. But in addition there is adventure, intrigue, and a fascinating manipulation back and forth in time. L. Sprague De Camp has combined all of these in his short story "The Isolinguals". Suddenly from all over New York City people are being brought to the Medical Center who seemed no longer to be able to communicate for they are speaking what simply seems to be gibberish. Noted linguists are able to identify some of the gibberish as very ancient language that have not been spoken for several hundred to thousands of years, but may well have been part of the ancestry of those afflicted. The city begins to panic for there is no pattern, the plague strikes indiscriminately. Detective Inspector Monahan, a very contemporary detective type, is suspicious for while all other citizens are trying to leave the city, many members of the National Patriots have been trying to enter the city. The Isolinguals, as they are now being called, have formed into packs and are pillaging the city. After several interesting detective type encounters, the solution becomes clear. The National Patriots in their effort to eventually take over the country have come across a type of radiation that affects a certain area of the brain causing the individual affected by the radiation to return to to the personality and language of another person in his ancestry. The National Patriots are immune to the radiation for they wear a special protective helmet. Once the secret is discovered, the villians are apprehended, and all ends as usual. De Camp has woven an exciting story of adventure and political intrigue with the threads of the past, present, and future. Not only that, but he has also left us with the chilling thought that in time we may be subject to outside forces that will no longer permit us to be in control of ourselves.

Adapting to new and strange environments, frightening new philosophies, attempting to live with catastrophic mistakes, plus adventure and challenge are all part of science fiction. From Ray Bradbury's "Rocket Man", a man who must leave his wife and son and earn a living within his longing for adventure and new horizons, who, next trip, is always going to stay home to stories like "That Only A Mother" by Judith Merril and "Tomorrow's Children" by Paul Adams, stories of mutation due to radiation are parts of the always world and the new world living side by side; a combination that young people are receptive to.

The joy of this unit is that there are so many avenues in which to work, and, of course, what more exciting way to introduce and develop a science fiction unit than by the use of media. The impact would be dramatic, and more often than not, the students themselves would become quickly involved.

There are a number of different forms of media available to use: slide-sound presentations, 8mm film, filmstrips, records, overhead projectors, bulletin boards, mobiles, students' original art work, and don't forget that old reliable print is still a vital form of media.

Using media almost becomes second nature once you've taken the plunge and discovered how easy it can be. Don't let me mislead you, it does take time and planning. Rarely can you pull a media presentation off the top of your head and have it ready to go at a moment's notice. For example, if you would like to do a slide sound presentation to introduce your unit, you need to begin early. Taking the slides, having them developed, and then synchronizing the slides and sound is not difficult nor that time consuming. What does take time is the search for the pictures you want to use for your slides, and perhaps, even the search for background sound will take time. After you've done one slide-sound presentation, you will have discovered that this is the time when it pays off never to throw out any of those back issues of magazine that seem to take up so much valuable storage space.

Once for another unit, though, rather than pictures, a student developed a very effective, short slide presentation on space by using the toy rockets, astronauts, etc. that came in the currently popular cereal. Oftimes the simplest, everyday items are more colorful and imaginative than something more elaborate.

Of course, while you've been looking for material for your slides, you also have been searching for music, stories, poetry, or whatever you plan to use as sound with your slides. When recording, if you do not have the equipment available for the electronic beep to change the slides, I would suggest using a resonator bell that you might borrow from the music department. It has a clear, firm sound, and easily identifies when the sound is to be changed.

If you do not have your own equipment, check to see if there is an A.V. coordinator at your school or in your district office who is available to help you with such projects. If there isn't, avail yourself of the facilities that most university A.V. departments have. Equipment is available and even certain supplies can be purchased. Instructions for use is with each piece of equipment.

As you develop your unit, you may find that your students would like to put together a slide-sound presentation. Several years ago for a mythology unit, my students did very simple slide-sound presentations. They were divided into groups and each group selected a myth that they wanted to re-tell in their own way.

Next, they wrote their script. When the script was completed, they drew their own pictures to illustrate their stories. The results were delightful, and teaching the skills of script writing and organization came about very naturally. They soon realized that they couldn't ramble or they would lose their point; worse, they would never get enough pictures drawn to illustrate their story. As soon as they realized that a slide could stay on the screen for only a very few seconds, the planning and organizing really sharpened up. They also learned the need for drawing several approaches to a single situation so they could have time enough to develop their story on the screen.

Had the district had equipment that the students could use, I would have had each group photograph their own pictures, but since it wasn't available, I took most of the slides the lab at A.S.U. When the slides were returned, each group put their script on tape with whatever sound effects they wished. Then we had a short film festival. The students were critical of their own work and appreciative of what the others had done, so the skill of evaluation was also developed. This same approach could be used in a science fiction unit, an area which is so rich in the field of imagination and creativity. This may be their world and they will have a great deal to say about it.

The same kinds of things can be done with filmstrips. Instead of taking slides, you change the procedure slightly, and you come up with a filmstrip. However, a beautiful thing is available on the market now, and that is a blank strip of film which you can use to make "instant Filmstrips." You work directly on the film with felt pen, A.V. pencils, or the typewriter. It can be cleaned and reused. It's great for the students to work with for they not only have immediate results of their creativity, but once more, they are developing the skills of articulation, planning, and organization, especially since they must work within each frame.

The overhead projector is another of my favorite mediums. For a science fiction unit, it could be used to develop the more practical aspects such as introducing terminology and developing vocabulary. These presentations could be made more colorful by using lifts to illustrate as many words as possible. If you have done a slide-sound presentation, you might want to use some of those same pictures you used for the slides to illustrate as many words as you can. The overhead projector, plus a pyrex pieplate, water, salad oil, and food coloring (in the pyrex, of course) and a screen or sheet can be used to create some rather sensational light effects.

Mention was made of bulletin boards and mobiles. Bulletin boards can be an essential tool for creating both background and atmosphere, as well as displaying student work. They are not difficult to do, but once again, it is a matter of allowing enough time to get your material together. Also, bulletin boards are a great way to get students involved. Most of them love to do bulletin boards, even finding or creating the necessary material.

Drawing pictures of stories is a long time technique, but you might carry it one step further and have the student create a mobile on some aspect of science fiction. In addition to rockets, space stations, and far out planet life, you'll undoubtably will be rewarded with many sensitive abstractions done by students who have a definite idea about this world they are about to inherit.

Don't overlook the possibilities of work based upon movies or television. A comparison between two programs such as LOST IN SPACE and STAR TREK might involve

the avid television viewer, and start a lively discussion or debate. More involvement can be generated by a discussion of science fiction movies such as the PLANET OF THE APES series. You might even have them create their own specific criteria for determining what is science fiction in the movies and on television.

Media use possibilities are legion, but by no means attempt to use them all in a single unit, for as with anything else, overuse makes media trite and boring. With overuse, it becomes the end rather than the means. Instead as you determine your purposes and objectives, select the media that would best enhance those purposes and objectives. And remember, the chief advantage to using media is that the students can be more directly involved, and better yet, when they've done the creating, they can see the results of their work. It's visible and concrete. . . for them and the whole world to see.

For those who do not feel at ease using media, there are still many possibilities for developing an exciting science fiction unit. Perhaps the main point to consider is to keep the student involved at all times.

Discussion and writing would seem to be the main areas of consideration, but think of the many things you can do. First think of the number of questions for discussion that just naturally arise in reading science fiction. Just a few examples might be:

What is science fiction?

Will the mind eventually dominate the body and will the body no longer exist as we know it?

Will man continue to judge every society he comes in contact with by only the values he accepts and therefore, perhaps destroy those societies. . .or be destroyed by those societies?

Will the universe eventually be controlled by an elite society? Or a mechanical society?

Will longevity and youth be increased to the extent that there will no longer be a need for additional population? In other words, will having children become obsolete?

Are the "pyrotechnic inventions" used believable, accurate?

How do you think science fiction adds to the "greatness of man"?

Clearly a unit on science fiction is a splendid opportunity to help students identify, discuss, and review their own values.

To begin the unit, you might want to involve the students in spontaneous discussion so they can explore their own feelings about science fiction in general, and then later on, as groundwork has been laid, get into planned, more specific discussion. Also, you might want to use specific discussion to study certain conventions of literature. . .and because science fiction puts man in a strange environment, what a wonderful opportunity to study characterization.

Debate is another natural for science fiction. Opposing views on what science

fiction is, the ultimate fate of our earth, new philosophies, etc. would allow students to express their views, but in a factual, logical approach, rather than in impassioned, informal discussion.

Science fiction is an extremely rich field for writing activities. Original science fiction stories are a must for this unit. Science fiction and the far out imaginations for junior high students belong together. Given the opportunity, junior high students can come up with ideas that equal those of the science fiction masters. True their writing skills would probably need much attention, but once more, this would be developing skills while working within their interest, rather than outside their interests.

Original poetry is another must for any mind expanding activity, for a mind open to anytime and any place needs to find expression. Poetry allows for either compressed or extravagant expression.

Whether you work with or without media, don't neglect to do some work with word study and figures of speech. So many of the words concerning space travel have their origins in Greek and Roman mythology. If you need help, Isaac Asimov has done a book called WORDS FROM THE MYTHS which is rich in background material for this area. As you work with word study, you might find that mythology is a natural spinoff from a science fiction unit.

Science fiction is rich in figures of speech. Junior high students usually do well if they master simile and metaphor, but science fiction helps them become aware for the need for figures of speech. Bradbury's "All Summer in a Day" is full of simile and metaphor. About the children and the rain he says, "But then they always awoke to the tatting drum, the endless shaking down of clear bead necklaces. . ." Margot writes, "I think the sun is a flower." Because of the need to picture a life of incessant rain, the students begin to recognize and appreciate figures of speech because they fulfill a need and are not high flown abstractions. In his DUNE, Frank Herbert immediately conjures up word pictures with descriptions like, "The old woman was a witch shadow--hair like matted spider webs, hooded 'round darkness of features, eyes like glittering jewels". These kinds of figures of speech junior high school students understand.

It's a temptation to include a suggested bibliography, but each person has his own favorites that will do very nicely. However, I would urge you not to overlook the master prophet, Jules Verne, and seriously consider Sir Arthur Conan Doyle's THE LOST WORLD. Also for this age much of Robert Heinlein's SPACE CADET series, Lester Del Rey's MAROONED ON MARS, Andre Norton's, especially her MOON OF THREE RINGS. Examine other science fiction notables as Arthur Clarke, Isaac Asimov, Alan Nourse, and, of course, those already mentioned, Madeline L'Engle and Ray Bradbury.

Approach your science fiction unit with enthusiasm and you will find you have not only a receptive audience, but receptive participants who are eager for mind expanding approaches to the past, present, and future. Robert Browning expressed this beautifully in his poem "Men and Women."

> "Ah, but a man's reach should exceed his grasp,
> Or what's a heaven for?"

A SAMPLER OF SCIENCE FICTION FOR JUNIOR HIGH

Jeanne K. Smith, Arizona State University, Graduate Student

For those of you unfamiliar with it, let me assure you that junior science fiction is not over-populated with twoheaded Venusians or bug-eyed monsters. Rather, it is a serious and entertaining attempt to explore for young readers some relationship between Man and Science. The focus of the plots varies, as it does in adult SF, from the consequences of technological developments already in existence, to the problems of multi-galactic political intrigue. However, I found in preparing this annotated bibliography that certain characteristics identify most SF popular with junior high readers.

- As the main character is usually in his teens, the coming-of-age theme is common.
- The trial the hero undergoes is task oriented, seldom a moral or ethical one.
- As in other adolescent fiction, adults are either absent, ineffective, or evil.
- The Doomsday setting does not occur as in adult SF. Whether natural disaster or scientific accident has caused the crises setting, the plot involves the preserving or rebuilding of civilization, not its death.
- The cosmos is essentially friendly to humans. For instance, alien beings, whatever their form, have harmless intentions.
- Sexual activity is non-existent and there is little love interest. In fact, girls seldom appear except on the periphery of the stories.
- The plots are one track and easy to comprehend, following the actions of one character. Action is more important than theme or character development.

In the following sampler of SF a few books are marked Y---of interest primarily to younger readers---or A---adult SF of interest to preceptive, older readers. The majority of the books appeal to the range of middle students who seek a teenage hero successfully meeting a problem rooted in some scientific development or disaster.

Isaac Asimov, DAVID STARR, SPACE RANGER, 1952, 144 pp. David Starr is sent as an undercover agent to discover how food grown on Mars is being poisoned. He acquires a sidekick, western style, finds the scientist villain, and is befriended by Martian crystal creatures. Space gadgets abound, ray guns, "magnetic" ropes, domed cities, in this first of a series.

Isaac Asimov, LUCKY STARR AND THE MOONS OF JUPITER, 1957, 192 pp. As a member of the Council of Science, Lucky (David) Starr and his sidekick, Bigman Jones, go to Jupiter Nine. A new space propulsion system is being tested and there is evidence that the Sirians have planted a robot spy among the crew. A V-frog which can detect emotion and hence differentiate between man and robot aids Lucky.

Jerome Beatty, Jr., MATTHEW LOONEY'S VOYAGE TO THE EARTH, 1961, 132 pp, illustrated, Y. Uninhabitable earth, its poisonous oxygen and destructive wind and water, is the object of a space probe by moon scientists. Matt Looney wins a place as cabin boy. Impulsively he takes his pet murtle. The murtle proves life might exist on earth and nearly crashes the ship.

Pierre Boulle, PLANET OF THE APES, 1963, 248 pp, A. Because of the APE

movies, older junior highs may try this reversed-role work. The typical adolescent SF hero proves his extra-terrestrial pet to be an intelligent being. Here Ulysse Merou must prove to his simian captors on another planet that, unlike the native human population, he thinks. An excellent treatise on the fragility of civilization and the definition of thinking.

Ben Bova, OUT OF THE SUN, 1968, 88 pp. Can a scientist separate the basic material he develops from the use to which it is put? Paul Sarko (an adult!) tries, but reluctently becomes involved in three mysterious military air crashes. This novella uses the language and settings of today rather than the esoteric jargon of some SF. Easy reading.

John F. Carson, THE BOYS WHO VANISHED, 1959, 212 pp. There is a science lesson on every page as Tommy and Billy fight their way home after shrinking to ant size. In that spider-eat-moth world, they ride a beetle, drink dew, feast on a grasshopper leg, and avoid becoming meals for insects by applying science facts learned in school.

Arthur C. Clarke, ISLANDS IN THE SKY, 1952, 209 pp. Roy wins a trip to any part of earth, and to the dismay of the sponsors choosed Inner Station, and earth satellite. Written before moon shots, this book is primarily a tour of satellite life and the hazards of space travel for those intrigued by what space may really hold in the near future.

L. P. Davies, DIMENSION, 1969, 206 pp. Another world, in another time dimension, occupies earth's space. When Gerald Morton and Lee Miller deliberately enter this nightmare dimension to rescue Lee's scientist uncle they discover a primitive civilization and a one-celled monster planning to invade earth. Through quick thinking and a radioactive watch the earthlings win the three-way race to earth's entry point. The melodramatic plot is based on Einstein's theories of time and on unsolved vanishings.

Lester DelRey, ROCKET FROM INFINITY, 1966, 191 pp. Pete Mason interrupts his archeology studies and reluctently befriends Jane Barry whose mother is considered dangerous by the space miners' vigilante committee. A derelict rocket loaded with bodies becomes the focus of both an archeological and a salvage find. Although set in some unspecified future, foreseeable developments in space technology and telepathy form a non-gimicky background for this tale.

Lester DelRey, THE RUNAWAY ROBOT, 1965, 188 pp. When Paul Simpson's family was transferred from Ganymede back to Earth, Rex, Paul's robot companion since infancy was to be left behind. Paul, and then Paul and Rex, plot how to get Rex to Earth. Rex, at the successful conclusion, is to become the "father" of improved robots who learn to have feelings, curiosity, and imagination. The book deals with Asimov's three laws of robotics, the potential for robot development, difference between robot and man.

Lester DelRey, TUNNEL IN TIME, 1966, 160 pp. Travel backward in time through and unperfected tunnel brings Bob, Pete, and Pete's father face to face with dinosaurs, the ice age, mammoths, sabre tooth tigers, and primitive tribesmen. This is an adventure plot based on a Wellsian time machine, rather than a projection into the future of science of humanity.

Eloise Engle, COUNTDOWN FOR CINDY, 1962, 191 pp. In a book not recommended for women's libbers, Cindy spends half her time upholding a traditional feminine image and the other half fighting off the results of her efforts. Nurse on a

medical rescue team, Cindy is the first woman on the moon, in this otherwise typical adolescent girl's novel.

Nicholas Fisk, SPACE HOSTAGES, 1967, 153 pp. The space setting is secondary to the characterization of Brylo and Tony in the psychological study of nine children taken hostage by a would-be savior who dies after setting a course for the sun. Tony, the bully, wants the glory and Brylo, who is black, has the brains to learn enough to return the ship to safety.

Robert A Heinlein, FARMER IN THE SKY, 1950, 221 pp. Because of severe food rationing Bill, his father, new step-mother and step-sister immigrate as homesteaders to Ganymede. Contrary to the rosy picture of the immigration board, they are not welcomed. Land of solid rock is plentiful but there is a shortage of machines to work it. Through hard work and diligent attention to ecology, Bill is nearly successful when an alignment of planets causes an "earthquake."

Robert Heinlein, POD[illegible]E OF MARS, 1963, 191 pp. Poddy and her little, super-genius brother, Clark, travel with their Uncle Tom from Mars Via Venus toward Earth. There is a plot to force Uncle Tom to political negotiations contrary to his best judgement. This adventure story explores several alternative social systems and hazards of space travel, comments on things we take for granted by viewing them through another's eyes, and concludes that woman's place is in the home.

Robert A. Heinlein, THE STAR BEAST, 1954, 282 pp. Four generations of John Thomas Stuarts have cared for the family pet, Lummox, an eight-footed, extra-terrestrial creature now of dinosaur size. Now Lummox's "people" threatenly demand the return of their child. But Lummox won't go without her current pet, John Thomas XI. Extensive inter-galactic diplomacy finds a solution. This book explores more thoroughly than the usual junior SF, the varying reactions to civilized, thinking creatures not of human shape.

Robert A. Heinlein, TIME FOR THE STARS, 1956, 244 pp. Faster than light or radio, telepathic twins communicate across galaxies, between exploring space ships and earth. The unaging Tom Bartlett survives space hazards and is able, as his earthside twin, Pat, ages to communicate with his daughter, granddaughter, and great granddaughter. The relativity of time in space, instantaneous communication and travel and the effects of these on a realistic hero fill this well-developed novel.

Raymond F. Jones, THE YEAR WHEN STARDUST FELL, 1958, 203 pp. Passage through a comet's tail stops all machinery on earth. Chaos overtakes metropolitian centers, but an isolated college town, Mayfield, takes effective emergency survival measures. Ken Maddox develops a ham radio network and organizes his high school science club as aids to the college science department. The crises brings out the best and worst in everyone, showing a variety of human reactions to catastrophe.

Alexander Key, THE FORGOTTEN DOOR, 1965, 140 pp. Again, the theme and plot center on brutal human reaction to someone who is "different." Jon accidentally fell into our violent world from his, where evil, hate, and fear do not exist. His cultural peculiarities plus his mindreading and telepathic communication with animals, force Jon and his protectors, the Bean family, to flee earth.

Alexander Key, THE INCREDIBLE TIDE, 1970, 159 pp. In a post-cataclysmic world most survivors are ruled by the facist New Order which threatens a strug-

gling island community. Conan, Lanna, Mazal, and The Teacher form a tenuous telepathic and mystical religious net to save what goodness remains.

Alexander Key, SPROCKETS - A LITTLE ROBOT, 1963, 144 pp., Y. An easy-reading book about a diminutive robot with an Asimov positronic brain. Sprockets must find human friends, purple people and their purple flying saucer, and moonstones all the while keeping his batteries charged and avoiding dangerous scientists and moon bats. There is little attempt to depict any real future era.

Madeleine L'Engle, A WRINKLE IN TIME, 1962, 216 pp. Meg, Charles, and Calvin are led by Miss Who across a tesseract, the wrinkle in time, to find Meg and Charles' scientist father. Miss Who's land is a pleasant fantasy world but beyond it is a world of absolute machanical conformity ruled by It. Meg conquers It through the power of love which It neither understands nor can defy successfully.

A. M. Lightner, DOCTOR TO THE GALAXY, 1965, 175 pp. Exports of a new grain, lustra, from a 27th century earth-like planet are threatened. Garry Bart, through his work with animals and discovery of a lemur-sized humanoid, is convinced that lustra inhibits growth and will dwarf humans eating it. The moral responsibility of the scientist is treated briefly but not lightly.

A. M. Lightner, THE GALACTIC TROUBADOURS, 1965, 237 pp. Nick, Hal, and Wren, young people with a knack for disrupting the status quo, tour human settlements on three planets singing and playing Old Earth songs and collecting anthropological data. Each also collects a spouse. Thematically "Who shall work---young people, old people, or slaves?" is explored. The theme and main characters loosely connect what would otherwise be three short stories.

A. M. Lightner, THE ROCK OF THREE PLANETS, 1963, 157 pp. Johnny Dincum and Cherry Flanders win an extraterrestrial animal show with the telepathic, sarcastic Rock. Because of a space accident, they are then captured, threatened, and exhibited as animal pets by bat-winged humanoids. In addition to the fast paced plot line, this book is a guess about extraterrestrial life forms.

Phyllis Maclennan, TURNED LOOSE ON IRDRA, 1970, 182 pp. At last! A hero who is not Boy Wonder! Bill Judson did so badly in school that there is no place for him in the computerized galaxy. He is sent to a remote, undeveloped planet where he averts insurrection. As a reward he is returned for further "training." Older junior highs will enjoy the humor in the hero, a non-conformist failure, and an anarchist humanoid society.

Tom McGowen, SIR MacHINERY, 1970, 155 pp., Y. A kind of fantasy science fiction, reminiscent of Twain's CONNECTICUT YANKEE. A robot, dubbed by a dwarf, Sir (because he is taken to be a knight in armor) MacHinery (a misreading of machinery) is used by a resurrected Merlin and Simon Smith (the physicist who made MacHinery and is remarkably like King Arthur) to defeat the demons who threaten earth once again.

Andre Norton, DARK PIPER, 1968, 249 pp. Cosmic war and planet-wide plague leave only a group of children trapped in deep caves to reconstruct and use the relics of their advanced civilization. They also face the emerging intellect of mutant animals on their earth-like scientific outpost. As the children have only their own determination to survive, no outside help, this pessimistic but enthralling story is for the more mature junior high reader or those versed in SF.

Andre Norton, GRAY MAGIC (originally: STEEL MAGIC), 1965, 159 pp. Greg, Eric, and Sara Lowry walk through a gate in a deserted stone wall and into Avalon, the country and time of King Arthur and Merlin. The children were "sent" with their picnic basket of stainless steel silverware to recover three magic items, a ring, a sword, and a horn, for Arthur and to prevent disaster (unspecified) in their own time.

Andre Norton, THE ZERO STONE, 1968, 286 pp. Eet, a telepathic cat-like alien, helps Murdoc Jern find the secret of the zero stone ring before the Thieves Guild can kill him for it as they did his father and employer. The language is somewhat formal and the initiation theme is obscured by space technology and the guiding mind of Eet.

Pamela Reynolds, EARTH TIMES TWO, 1970, 160 pp. The intent to misuse telepathic control to enslave inhabitants on earth's twin, Terra, is thwarted by earthlings Helena, Jeremy and his cat. They are teleported to Terra in order to learn the secrets of earth's advanced scientific developments. Mind control is the issue of the fast moving plot.

Robert Silverberg, CONQUERORS FROM THE DARKNESS, 1965, 191 pp. Dorvirr, eighteen, must consider the responsibilities of power when he becomes a pirate ruler of two-ninths of the remaining sea-covered world civilization. He must unite Earth, including the SeaBorn, who were genetically changed to breathe underwater and are now believed to devour anyone falling into the ocean, in order to ward off destruction by the StarBeasts.

Robert Silverberg, REVOLT ON ALPHA C, 1955, 118 pp. Larry Stark, newly graduated space cadet, lands on a colony planet about to revolt from Earth's control. He must decide whether to join the revolutionaries. Only sketchy reasons are given for the revolution in this action centered book.

Robert Silverberg, TIME OF THE GREAT FREEZE, 1964, 191 pp. After three-hundred and fifty years of ice age, men begin to emerge from underground cities. Seventeen year old Jim Barnes, part of a group exiled from New York, meets groups in several stages of civilization. Distrust reigns on the earth's surface and threatens to block reunification of mankind.

Louis Slobodkin, THE SPACE SHIP UNDER THE APPLE TREE, 1952, 114 pp., illustrated, Y. Eddie Blow initiates Marty, the little man from Martinea, into the mysteries of Boy Scouting and earth life. Marty demonstrates his gadgets powered by secret Zurianomatichrome Wire---until he loses it! This is a humorous look at a few American customs for early junior high.

Louis Slobodkin, THE SPACE SHIP RETURNS TO THE APPLE TREE, 1958, 127 pp., illustrated, Y. In this sequel Eddie and Marty tour the U.S. and celebrate the Fourth of July.

Jean and Jeff Sutton, LORD OF THE STARS, 1969, 220 pp. Danny June has lived alone on Wenda since his rocket life boat landed him as sole survivor of a colony ship. His "friend" is Zandro; they communicate telepathically, Zandro's motive is to learn enough about humans to destroy them. Danny is contacted by Arla, a telepathic human. Together they combat the power of the grotesque Mind Masters.

Jean and Jeff Sutton, THE PROGRAMMED MAN, 1968, 191 pp. The ultimate bomb has kept peace in the universe for centuries---now its carrier has been sabatoged! Three powers race to recover it in this interstellar spy and counterspy story. Daniel York (supposedly) is earth's master spy, and Myron

Terle, a teleport from Zuma, is his arch rival. The reader knows the man called Terle has been programmed hypnotically. The secret of the bomb and who is who is revealed after many devious turns.

Gerry Turner, STRANGER FROM THE DEPTHS, 1967. 204 pp. The discovery of ascally humanoid, Saa, starts Gary and Jordan Howard and their companions on exploration of remnants of a pre-dinosaur civilization buried under the ocean floor. Moral and technical decay have all but destroyed the society that Saa and his human friends plot to rebuild by reactivating a technology using energy from the earth's core.

H. G. Wells, THE TIME MACHINE, 1895, 123 pp., A. The Time Traveler goes in his time machine to 802, 701 AD where he finds a decadent people, the Eloi, living in leisurely comfort but fearful of an underground gnome-like slave society, the Morlocks. The Traveler barely escapes the era during a Morlock revolt. He visits 30,000,000 AD, the time of earth's death struggle.

June Wetherell, 1971, 179 pp. From the plastic world of 2032, Hera Barlow searches for the heritage left by her 1970 hippie grandparents. While learning they founded the underground idealistic RR, she meets Ethan with whom she fights the 2032 establishment. Giving alternate Twenty-first Century views of the 70's---idealized good old days or hopelessly primitive antiquity---the author leaves the impression it's all down hill from here.

Ted White, NO TIME LIKE TOMORROW, 1969, 152 pp. Frank Marshall is accidentally transported five hundred years into a future where giant corporations electronically control a stratified society. Dorian, Heiress to Syncom, is kidnapped with Frank by a rival corporation. Their escape route reveals to her the plight of the lower classes and to the reader the extension of current trends: pollution, genetic control, and artificial pleasure stimulation.

Ursula Moray Williams, THE MOONBALL, 1958, 159 pp., Y. The moonball at first seems dead but somehow the children feel it is alive. Its origin never explained (an alien ex machina is implied), the moonball brings solutions to personal problems and peace to the children, come-uppance to a greedy professor, and then the moonball floats away.

Henry Winterfeld, STAR GIRL, 1957, 191 pp., Y. A friendly alien from Venus, in the shape of a human child is liked and believed by children, but thought insane or a menace by adults. The children help Mo return to her rendevous on time. The focus is on human suspicion of the strange rather than science fiction gadgetry.

Roger Zelazny, DAMNATION ALLEY, 1969, 157 pp., A. Hell Tanner may be the hero for older SF buffs tired of the Boy-Scouts-in-space genre. As an alternative to execution Hell carries serum from California to plague stricken Boston across a continent destroyed by nuclear war, magnetic storms, and mutant creatures. Hell creates a trail of death, sex, and profanity. He arrives, not reformed, but having learned to care about a few others and having observed alternative ways of coping with a post-atom war world.

OUT IN THIRD FIELD WITH ROBERT A. HEINLEIN

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The definitions or explanations of what constitutes science fiction are almost as varied as the numbers of those who read it with their varying degrees of "aficianado-ness." Some see it oriented toward fantasy; others see in it the opportunity to explicate purely scientific discoveries into the future; and another group emphasizes fiction so thinly based on science as to be barely related. Yet another, and perhaps the strongest group, delight in this genre as an exemplification of the continuing change, the old battle of man's wits versus the forces of nature, which actually underlies the structure of our American way of life. This may explain the dominance of Americans in the field, as authors and critics and publishers, and readers. The basic joy and freshness, the play of imagination, the creative impulse and pleasure of the author in his involvement with the people and world of his own making is seldom as apparent in other modern fiction authors and their works at the present time. While the latter may want to show the need for change by commenting on the past or the present social sturctures, the science fiction author uses much the same basic material but with a difference in attitude: hope and belief in man's desire and ability to accomplish change; and thus writes a much different story, one which cuts across age to build a solid readership.

This element of change has been observed in two recent situations. In the introduction to THE 1972 ANNUAL WORLD'S BEST SF, editor Donald A. Woldheim writes on "the essence of science fiction as a changing world, the belief in human infinity." He characterizes readers of the genre as "generally youthful in mind if not always in body, optimistic even when occasionally dubious about the immediate future, favorable to human changes, even when angered about individual political foibles, and believers in the beneficial uses of sciences even when protesting the commercial or military mis-users of science." We might well have written the same about the authors, for those are the qualities one senses in the real persons of Heinlein, Clarke, Asimov, Herbert, or Ellison--Bradbury, too, for the part of him that belongs here--and that one sees in their writings, to name but a handful of excellent writers.

For some readers science fiction serves as a bridge to the unknown, making what seemed bizarre inventions or outlandish social changes palatable when they occur in the normal course of life changes. Surrounded as we are by the technology of our own day, we often fail to understand the fears with which each of these "new" things was met by our parents or grandparents, even though we, too, are apprehensive of future modifications of familiar objects. Videophone, for example, is not a reality for all, but it has come and will become commonplace in the near future. With what ease will you use and subscribe to it?

And while you weigh your own feelings, reminisce with an early day Phoenician on his first encounter with a telephone. Now 94, Elmer A. Cartwright recalled for THE ARIZONA REPUBLIC his memories of an historic house where some 70 years ago he guarded the house and talked, most reluctantly, for the first time on a telephone: "That phone started ringing and I was afraid of it. It rang off and on all day, but it was evening time before I got up enough courage to answer it. The caller was a man I knew." If rumor holds he'll have the opportunity to try video-phone when it comes to Phoenix-Tucson late this year; his

lifetime having already spanned the "central" operator, dial, and punchbutton methods.

One might wonder too why so many old ice-boxes are still available, at antique prices, for conversion into liquor cabinets. Recalling that electric power was not greeted with uniform enthusiasm, one can imagine the old ice-box being stored away just in case this new thing failed to work. Certainly, our own brown-outs provide use for the kerosene lamps preserved for much the same reasons!

Today's reader of science fiction may more readily accept extensions of the objects which surround him due to his familiarity with the projections found in the books and stories he's reading. This interest in the past, the present, and the future seems to be the stuff of which science fiction writers and readers are made of. Recently a fan letter writer described a s-f fan as one who "is interested in the past and the future and has a gut feeling that the present is the outcome of the past and the beginnning of the future. SF fans are Then People."

And Robert A. Heinlein is A Then Person, a writer of the liveliest creative imagination whose philosophy and ideas are integrated into his novels and those who people them as a basic fact. Certainly all readers do not like his philosophy, his ideas, nor his people, but they accept them as the realities of Heinlein's worlds.

Sam Moskowitz in SEEKERS OF TOMORROW, his definitive biographical and critical study of some 22 of the leading science fiction writers over a twenty-five year period, devoted more than 20 pages to Robert Heinlein and his works. Moskowitz sees as major influences in Heinlein's career two forces.

Heinlein was graduated from Annapolis in 1929 and his career in the early 30's was in somewhat of a s-f future setting in that his assignment was in the unproven aircraft carrier section. This brief career ended in 1934 when he ignored an illness which resulted in early disability retirement at the age of 27. He entered graduate school to study math and physics at UCLA. This too proved more strenuous than his health could stand, but in succeeding years he explored a number of different jobs until he attempted writing.

The second great force was his continuous and extensive reading in science fiction from 1916 on, both the classicists, Verne, Wells, Burroughs, Haggard, and all the newer writers then appearing in the magazines. Few other writers are so aware of the themes which make up the body of science fiction literature and in discovering, inventing, and adding new ones. Four Hugos, which in science fiction is comparable to the Nobel, attest to his leadership. Moskowitz notes: "His role was to lead, not to follow." Two other comments: first from THE NEW YORK TIMES: "Robert Heinlein wears imagination as though it were his private suit of clothes." and from THE DENVER POST: "Heinlein never preaches directly and he never writes down. . .His underlying theme, I think, is that not only are all men children of God and therefore brothers, but all higher life forms that man may encounter, someday, in the outer reaches of the galaxy." And Sam Lundwall, writing in SCIENCE FICTION: WHAT IT'S ALL ABOUT: "I believe Heinlein has done more than any other writer to prepare youth for the big adventure, the Future. Whatever can be said about Heinlein in other respects, this is enough to give him an exceptional position in the genre."

Heinlein himself acknowledges a solid debt to one major American author, Sinclair Lewis. The latter's habit of creating for himself a world in which his

characters interacted only for him in order that he could project them into situations familiar to the reader was taken over and greatly magnified by Heinlein. Both authors thus know more than their readers of the attitudes and actions of their characters. "I figured that a technique which was good for Mr. Lewis would certainly be good for me; I swiped the idea," he wrote in 1949.

Heinlein's future history was so extensively planned that he hasn't as yet written many of the stories to match the listed titles. Many a first time reader searches in vain for a title the author lists in a series and discovers only the last have been written. It is, nevertheless, fascinating to read the chart which has been included in many copies since he showed it in 1940 to John W. Campbell, Jr. who insisted on publishing it. In brief, it covers a period from mid 20th Century to the 27th Century AD, giving characters, inventions and events with scientific and sociological implications and explanatory remarks.

To have written those planned in any one series or period of history would challenge the most imaginative and productive writer, but Heinlein has skipped through series and periods as he would and written much more in addition, delighting his readers, who remain assured that someday he'll somehow complete the project.

While other writers use this creative ploy, Heinlein undisputably maintains a stronger scientific base than most. Lundwall sees him as "the unquestioned master of this art of constructing societies as background and motivating forces for his plots" at the same time that the plots themselves continue to be valuable and intelligent.

In the years bridging his retirement and the commencement of his writing career, Heinlein became involved in many activities, which are reflected in his writing. His continuing ill health prevented his graduate study pursuit at UCLA and too active or too prolonged involvement subsequently in the fields of real estate, architecture, mining, or politics.

His first appearance as a professional writer was in 1939, and like many other young men, or old for that matter, of the time the propelling need was to provide for his family. This was also a period of great growth in science fiction publications and with the proliferation of magazines, new and more writers were required to fill the pages. Editors were anxious to recruit and encourage new writers and one who had been a life-long reader, who had the verve to dig into new and unknown professions, was well suited for this venture. Moskowitz calls it "a logical step" for "an unrepentant lifelong reader of science fiction." A few of those others who also accepted the editorial challenges at this time include Asimov, Bester, Sturgeon, and van Vogt.

Within nineteen months Heinlein had been nominated as most popular author by a poll of fans and chosen as guest of honor at the SF World Convention, Denver, 1941. He expressed himself so about science fiction: ". . .even the corniest of it, even the most outlandish of it, no matter how badly it's written, has a distinct therapeutic value because <u>all</u> of it has as its primary postulate that the world <u>does</u> change." His own practice of the attribute of change combined with ingenious plots, superb background materials, and above all, excellent writing, opened new vistas to science fiction. The mass-circulation magazines as opposed to the purely science fiction magazines, teen-age boys magazines, and motion pictures began to show an interest that has never subsided, and Heinlein was in the vanguard all the way.

As we have said before, there are misconceptions commonly held by those who don't know a great deal about science fiction. The most prevalent is that science fiction is fantasy about some horrible world and its people that only exists in the imagination of the author and could never be true, and especially we hope it will never come true. . .it's just too horrible to consider. Something like what we used to see on the TWILIGHT ZONE or THE OUTER LIMITS. Another belief, mostly indulged in by those who know something about science fiction, and who therefore, consider themselves "experts" is that science fiction is exactly that--fiction about Science. That is, what new ideas about technology can we come up with if, say, the Earth were to collide with another world (WHEN WORLDS COLLIDE and AFTER WORLDS COLLIDE, Philip Wylie) or what source of power would be used to power the ships that will enable us to escape earth gravity pull (THE SHIP THAT SANG, Anne McCaffrey).

Then, again, there are the people who write about the new technology that will make life a lot easier to live in terms of "conveniences," like Ray Bradbury's house in "There Will Come Soft Rains" (THE MARTIAN CHRONICLES) where tiny robotic mice clean the floors, the oven cooks the meals and disposes of the leftovers, electronic circuits open and close the doors, and where you don't even have to light your own cigar or read your own book, the house does all this for you. Or there are the robots created originally by Isaac Asimov and improved on constantly by himself and many others. Robots to do your every will and bounded by the three laws of robotics (also created by Asimov) so that they cannot take over human society or harm humans.

Now, these misconceptions, as we have termed them, have some place in the writing of science fiction. The problem lies as we see it in thinking that this is all that science fiction is composed of. For it is not. Horrors and fantasy have always had and always will have a place in men's lives. Perhaps it is even necessary for the Poes and the Lovecrafts to vent this imagination in words for the rest of us so that the things that go bump in the night occasionally will not be too terrifying. The mental hospitals are full of people who cannot see their "horrible" creations in the proper perspective. And modern conveniences are much too lovely to give up. Grandma may have been more "authentic," but only for her time, and this is our time and we quite like the extra leisure that science has created for us. . .and after all, pop-up toasters, self-cleaning ovens, phonovision and harnessed electricity itself were once in the fiction stage of science. Besides all these things give us much more time to read, and that's really what it's all about.

Then, too, science fiction must also be about people. . .what are they like, how do they live, what is their relationship with one another, what do they believe in or not believe in, how do they cope with their world, and finally, it is better than what we have ourselves? For it is our firm belief that science fiction is also social fiction. And of all the authors we have read, we think that Robert A. Heinlein is the master of social, science fiction.

One of the most interesting and exciting things about Heinlein's writing is that he leads into situations gradually. Even in his juvenile literature, he expects the reader to learn from the characters and their actions. Little by little you figure out the meaning of phrases that his characters use or what references to various items of their culture imply. Sometimes you must read about half way through the book before you can figure out relationships, but the system works and works well because for the most part Heinlein is not boring. . .the very action of the story line keeps you reading.

As anyone who frequents the science fiction bookshelves knows, Heinlein is touted as the author of STRANGER IN A STRANGE LAND; almost every book jacket of subsequent books has somewhere in the publicity blurbs that this is the author who wrote that same book. Just why STRANGER is such a marvelous book we have frankly never been able to figure out. No one we know has been able to ever finish it. . .we all get bogged down in one place or another. And, for us, the same holds for his latest book I WILL FEAR NO EVIL. Both books seem to be sensationalism for sensationalism's sake. At any rate, we don't like them and won't discuss them here. What we would like to do is to present a few (repeat, few, for the man is prolific) Heinlein stories to support our claim that his focal point of interest is man.

Basically, some of Heinlein's books can be classified as follows:

JUVENILE	THE FUTURE ON EARTH	POLITICAL
THE RED PLANET	FARNHAM'FREEHOLD	THE DAY AFTER TOMORROW
CITIZEN OF THE GALAXY	BEYOND THIS HORIZON	(orig. The 6th Column)
STARMAN JONES	THE DOOR INTO SUMMER	REVOLT IN 2100
FARMER IN THE SKY		THE MOON IS A HARSH MISTRESS
TIME FOR THE STARS		

We define juvenile literature in Heinlein as those stories or novels written from the younger point of view. The most glaring problem in these books is that the language is stilted and not in the same way that teens' language is stilted today. Their conversations almost always begin with "huh" or "uh" and are not terribly inspiring from there on out. However, his characters are portrayed as being above the norm with above average intelligence. Certainly, they are the products of a civilization and educational system advanced above our own. For example, sixth graders study algebraic principles and elementary accounting as a matter of course, something just beginning to be done in these the 70's and his books were primarily written in the early 1940's.

The futuristic books can be divided into two categories: those taking place on the physical planet Earth, which may or may not be changed physically some eons in the future, but which has changed socially and economically, which in turn forms the basis for the particular argument he is proposing at the moment. The second type of futuristic novels take place somewhere physically other than Earth. That is, man has travelled to or beyond the stars in these books. And those new worlds create their own particular problems.

Finally, there are the political novels in which the action is caused by some government factor. There is a definite bureaucracy in the background and the people in these books are caught up in that machinery.

As with any other grouping, all these books can and do switch from one category to another. The lines of demarcation are not strictly drawn.

The juvenile novels although told from a juvenile point of view and originally published for the juvenile market because that's where the publishing was being done at the time, can most certainly be read and enjoyed by the adult reader. They are adventure on the simplest level. Most all are involved in a boy's search for a somehow better life than he has at the present. The most outstanding and sophisticated of these is TIME FOR THE STARS. The basis for the story is the same of much in science fiction-- man has reproduced and replenished himself to such a degree that a search for a new planet is not merely adventure, it is a social and economic necessity of the highest degree. In this story, twins play a fascinating role in that they are used as special communicators for space ships, the idea being

that twins are especially receptive to one another's vibrations, and so more receptive to mental telepathy. With a little psychological pushing, of course. The problem we're trying to conquer here is the idea of relevance. Time may be relevant, but a message sent from several light years away in space will take 100 years or better to reach Earth. This can cramp exploration for new planets more than a little. But if you have telepaths who can send messages to each other at faster than the speed of light, then you have conquered relevance in time and space exploration becomes a more feasible idea. So one twin (Pat) stays on Earth while the other (Tom) goes into space to transmit data about other planets, about the solar system, and not incidentally, to test speeds of transmission which will in turn help to make time irrelevant. Heinlein may not have been the first to write about this theory, but he did write about it nearly 17 years ago, and today the Russians are doing extensive research into using telepathy with their astronauts. A nice side factor for the space traveller is that while his counterpart on Earth grows successively older, he (in space) remains essentially the same age. That is, the further away he is from his own solar system, the slower he ages, time being relative in space. So, a man of around 65 years old going into space to assure the education of his 6-year old greatniece (with whom he is telepathic) is approximately the same age she is (in their 70's) when he returns at what seems like a few years later to him. And Pat is nearly 90 years old as opposed to Tom's nearly 30 years.

Earlier in 1941, Heinlein explored superficially the idea of telepathy in METHUSELAH'S CHILDREN with a not-so-inspiring side effect. The idea in this story was to develop a strain of long-lived Earthmen in order to improve the race. . .the telepaths were the culls of that group. They had neither the intelligence nor the physical capability for a normal life and had, indeed, to be kept under sedation at all times except for their times of telepathing information, primarily messages to the Family members. They were called "sensitives" because they were sensitive to others of their kind.

An idea to which Heinlein appears committed is that accidents of early education will often lead to greatness in a boy's maturity. It was an accident of genetics which gave the twins of TIME FOR THE STARS their ability to be uniquely useful as they grew older. But in CITIZEN OF THE GALAXY it is accidental that Thorby, the child slave, should be sold as a joke to Baslim the Cripple--a not so common beggar as it turns out. For it develops at a much later date that Baslim is actually a secret agent and the people whom he has instructed Thorby to contact upon his death are all people of importance in shaping Thorby's eventual personality. Therefore, by accident, Thorby meets a man who has the power to return him to his family. Baslim, obviously (to the reader) more than the crippled beggar he seems, lays the foundation for all Thorby's later experiences. This beggar teaches Thorby much more than how to get along in the world of beggars on a planet far from Earth. With hypnotic suggestion and tape recordings Baslim "force feeds" Thorby the schooling he has never had. Thus, the math that Thorby learns by the Renshaw method is instrumental when he's taken aboard the Sargonese ship of Free Traders. The speed with which he can grasp the highly technical material offered in the ship's school leads him to the fire-control computer room. After he has spent time with the Free Traders, he is turned over to the military service of the Galaxy which helps him find his family. The training he has received as a fire-control officer leads accidentally to the same position aboard the Hegemonic ship.

The same formula is used in STARMAN JONES, Max Jones' uncle had been a member of the Astrogators' Guild and, dying suddenly, left his Guild books with Max on a lonely farm where books were a rarity and to be savored again and again. Max virtually memorized these books which are no more than math tables, he himself

having an eidetic memory. When the Guild reclaims these books, all Max has lost is the physical possession and later on when he finally has a chance for elementary training in the astrogators' room aboard ship, Max's memory of the books' tables causes him to be noticed and advanced beyond his social standing. The crisis develops with conflict of personalities and the death of the ship's chief astrogator, culminating in the ship's astrogation books being destroyed by a jealous and mad senior officer and Max finally finds the only means to save the ship through his memory of the books' tables for the mathematical computations necessary to run the ship.

This is, however, a single moment in time, and the idea is presented in CITIZEN in a much more complex manner. Although it is primarily a study in human relationships, CITIZEN presents several worlds within the universe of extremely diverse technologies and cultures. The problem for Thorby in the long run is how to assimilate these "accidents" in his early life into one human being (himself) with the least amount of conflict.

The Beggars' society teaches him craftiness and respect for a person who has done well. Later on, when he is well out of that world, he comments to his friend about a pickpocket he has caught and let go by saying,"...that's a hard profession to learn. I once tried it myself. I was a good beggar but never even a fair pickpocket."

On the ship of the Free Traders, he learns that business is all-important and that a fierce loyalty is expected of all who are part of the ship's family. Indeed, here he has a family for the first time in his memory, and the complex relationships are almost too much for him at first. In fact, they might be for any of us considering Heinlein created a society here in which there is a different word for every relationship in the family, i.e. Cross Cousin-in-law by Marriage, Adopted Younger Brother, and Foster Ortho-Nephew. Not only does he create the complex naming system, there are differences in addressing another person both in inflection and tone of voice, to say nothing of a formal and informal speech.

This indicates to us that Heinlein shows a certain sophistication in realizing that languages will differ within varying cultures and even change drastically from the basic culture we call "Earth." Even in CITIZEN English has become System English with certain refinements and deletion of unnecessary words. In BEYOND THIS HORIZON the language becomes one of extreme politeness with addresses such as "gentle sir" and "how gentle of you to come." And in FARNHAM'S FREEHOLD the official language has become almost gutteral with many nuances of tonal and inflectional quality. Hugh Farnham is urged to "Speak Language."

Then there is the social order. In CITIZEN the society is matriarchal in a limited sense. In the Free Traders' society of CITIZEN, the ship is the whole society, where the Chief Officer is either the Captain's mother or his wife, and who in the capacity of Chief Officer wields absolute power. Decisions made by the Captain are made in consulation with her although he is the titular head of the ship and gives all orders to the crew. He has absolute authority and respect in his own right, however, as the ship's Captain cannot be a weak man. He just knows his proper place. In FARNHAM women have importance only insofar as the lines of official authority run--she might bear a son--and the line runs from Uncle to nephew, and a society results in which Uncle has replaced in importance the Father, and even oaths are made "By Uncle."

Accidents of birth and early upbringing are not Heinlein's only interest

in the early development of human beings. As mentioned previously, METHUSELAH'S CHILDREN explores the idea of creating a long-lived line of people, the Family, and their problems in re-adjustment through many "normal" life spans. Consider the impact on yourself having at most 35 or 40 productive years and suddenly discovering that your neighbor, for example, looking like an ordinary person, is one of many who might live 300 to 400 years. Think of the vast amount of wealth they could accumulate. What would your reaction be? And this is precisely the problem in M'S CHILDREN.

Now, long lives are carefully planned according to scientific principles--gene selection, etc. In other words, the process of ageing is retarded. So, another possibility is a society in which the sperm and ova are carefully selected and then developed--in a test tube maybe or even the slow and often uncomfortable way women go about it now. Therefore, in BEYOND there is another "favored" line of people, the Starline, self-explanatory, we think. These are the people who will control the society. No accidents of early training will happen here to develop heroism in an otherwise ordinary person. And speaking of language, this is also reflected in titles such as the Elder Brother and the Great Egg, one of those things you figure out as you read along. Here, they also have a group of "control naturals." That is, the people who age more quickly, and who are subject to tooth decay, hangnails, arthritis, and the common cold. These are the people who cannot afford the clinics to have the best possible match between sperm and ova for the best possible offspring. And they are surely unaware of the Starline--that line which is planned for the very best of all the carefully controlled test tube graduates into the human race. And after the test tube, young lives are not left to chance either. There are "primary development centers" as well as a board of "planners and developers" for each child.

Again, in FARNHAM there is the "Chosen" group of people--all others being considered "substandard." A ghastly way of keeping the Chosen line pure--all "undesirable" (meaning 99% of the male population) men are "gelded" save the few reserved as "stallions" and even they past their prime are altered.

Question: Considering the types of societies given above, what tensions or customs are apt to develop? Read Heinlein.

The technological ideas presented in Heinlein are not too advanced for our day--perhaps just not practicable to put into everyday living--although for the 1940's they probably seemed very futuristic. For example, in BEYOND we have slideways instead of sidewalks. Moving sidewalks, in effect, which move at differing rates of speed. We also have no keys for doors, but special code combinations which when punched check facial characteristics as identification. And the doors don't open; they dilate. And the GNP is figured very closely by computer so that supply and demand are always equal. In that event, what happens to the capitalistic spirit? There are telephones that record messages while you are away (nothing new) and yet are sensitized to the proper person stepping into the room and "speak" immediately to that person the message held for him. This may also be our first introduction (1942) to the water bed. The bed can be regulated to that after X-hours of sleep, the water drains out leaving the sleeper uncomfortably on the hard floor--and awake.

At this point we would like to leave you the reader with something more to do than just say, I agree or disagree. We believe more strongly than ever with several re-readings over this past summer of Heinlein's works that his stories be they novel, novella, or short stories <u>are</u> the study of man, man's

actions and reactions, man's problems and solutions to those problems. We agree with Henry Kuttner who said in his introduction to REVOLT IN 2100, Heinlein "has accepted membership in the human race."

So, we suggest that you look at the other books we have listed above: THE RED PLANET, a story of Earthmen-Martian relationships and much more with the delightful Martian baby, Willis; FARMER IN THE SKY, a teenage boy going with his "new" family to farm a planet far from Earth (another over-population problem book); THE DOOR INTO SUMMER which shows some of the problems of being "frozen" to be re-awakened sometime in the future world. And there are the books which we prefer not to discuss, just to suggest, the political novels: THE DAY AFTER TOMORROW, in which six men are depended upon to save the United States' government after an Asian bombing attack (think of the tensions and pressures here!); REVOLT IN 2100, the story of a religious bureaucracy in the United States where we have the Prophet instead of the President, and the Angels of the Lord graduate from West Point (and who will deny the impact of Billy Graham's Crusade for Christ presently taking place in the U.S.?) And, finally, THE MOON IS A HARSH MISTRESS, a penal colony and a truly revolutionary novel.

But if you would prefer to start with some short stories, there are excellent collections: THE WORLDS OF ROBERT A. HEINLEIN, THE MAN WHO SOLD THE MOON, 6 X H, ASSIGNMENT IN ETERNITY, THE GREEN HILLS OF EARTH, and THE MENACE FROM EARTH. We particularly suggest "--We also Walk Dogs" (TGHOE), "The Roads must Roll" (TMWSTM), and "And He Built a Crooked House"(6XH). And if you like any of these, there is so much more.

He remains a controversial figure. There are many who object to his ideas and philosophies. Lundwall, for one, speaks of his "uncomfortable conservative" political views "which might make Senator Goldwater giddy with joy" and of his "John Wayne-ish" heroes. Others dislike the militaristic positions he often paints. His women are generally conceded to be poor replicas; as one reviewer put it: "My guess is Heinlein waited too long to start writing about love and sex." Most are agreed that his teen-age novels are really adult books published most advantageously at the time. But no one denies that he is read and re-read and has a primary place in the esteem and affections of science fiction readers and writers.

Fellow author and reader Fritz Leiber spoke for many fans around the world when he reviewed I WILL FEAR NO EVIL in FANTASTIC SCIENCE FICTION AND FANTASY STORIES, August, 1972: "Heinlein is my most beloved science fiction writer and by the supreme test: by a long stretch I reread his books more often than those of any other author in the field....when bedtime comes and I feel in the mood for sf...three times out of four my fingers close on a Heinlein." In what becomes a rather unusual tribute from one author to another, he touches base on many points of Heinlein's career, closing with, "Long may he write."

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SHOPTALK: A Column of Brief Ideas and Sundry Thoughts about Science Fiction and the Teaching of Science Fiction in the English Classroom

"Until the present time, science-fiction has been almost completely excluded from the public school curriculum. Science teachers have frowned on it because of its lack of authenticity and verisimilitude, and English teachers have not recognized it as literature because of its style in which often, as Isaac Asimov states, 'The plot is the character.'

But society and its institutions, of which education is a major one, is changing. As is common in all periods of revolutionary change, the need and desire to change are coming from below; from the people . . .

Educational changes are reflected in high dropout rates, in the rejection of traditional occupations by recent graduates, in the establishment of free and alternative schools, and in cries for relevant curricula . . .

Readers /of science-fiction/ find it prophetic, meaningful, possible, relevant, and highly interesting. Arthur C. Clarke, in a taped interview about his film 2001: A SPACE ODYSSEY, states that young people seemed to have no difficulty in understanding what it was about. He further states that science-fiction is the only literature he knows which is concerned with 'reality.' Most fiction, he points out, is concerned only with little bits of reality which happen to one small species on one small planet. To Clarke, science-fiction embraces the entire world."

Sheila Schwartz, quotation from her NCTE speech in Las Vegas, taken from Stephen Judy, ed., CONVENTION CONCERNS-1971, p. 13.

Ray Bradbury begins his article, "Science Fiction: Why Bother?" in Bantam Publishers' little free handout TEACHER'S GUIDE TO SCIENCE FICTION (write Bantam for a copy), "Permit me, like a fourth rate George Bernard Shaw, to make an outrageous statement. And then permit me, like a similar ramshackle Shaw, to try to prove it. Ready? Here it is:

Science-fiction is the most important fiction being written today.

It is the central literature of our time.

It is not part of the Main Stream.

It is the Main Stream.

There now. Are you sufficiently outraged? I see that your eyes are wide, your mouth gaped, your cheeks suffused. Your fists are clenched. You are beginning to mutter. Excellent."

A good article worth any reader's time.

If you're at all mildly curious about the number and kind of science fiction fan magazines available, take a look at John D. Perry's column, "The Clubhouse," in the July 1972 issue of AMAZING SCIENCE FICTION. Perry comments in some detail on six and lists 31 (all with addresses, costs, sizes, etc.) others.

"What lures us into the starlit corridor of science fiction? Perhaps for the oldsters it is a desire to come face to face with projections of our vice and folly. But youngsters are compelled by other motives. They want excitement, adventure, idealistic quests, and a chance to exercise creative imaginations.

Adolescents are dreamers. They read to find out about themselves as they might be, in a world as it may be, shaped, in part, by themselves as they would be. Adolescents are imaginative, much more so than adults conditioned to patterns and habits of their daily routine. Adolescents have not yet lost the zest for exploration and discovery. They have yet to use their creative imaginations to erect a world of the twenty-first century, surpassing the world of their parents and grandparents, always a world better than they now know."

Thus Alan Madsen begins his article, "That Starlit Corridor," in the Sept. 1964, ENGLISH JOURNAL, pp. 405-412. A seminal and important article on using and teaching science fiction in the English classroom.

The first issue of a new magazine, ECOLIT (published by the English Department at Sonoma State College, Rohnert Park, California 94928), begins with an article, "Summoners of Doom, Prophets of Hope: Ecology and Science-Fiction," by Mary Shaffer. She opens her article with these words:

"Ecology has become a familiar household word in America, though the subject has concerned biologists for decades, and, though it may sound improbable, science-fiction writers. The average person associates the written word and ecology with Paul Ehrlich's THE POPULATION BOMB, THE ENVIONMENTAL HANDBOOK, or MOMENT IN THE SUN by Robert and Leona Rienow. They have probably never heard of the Rienows' satirical science-fiction novel, THE YEAR OF THE LAST EAGLE, or Harry Harrison's aptly-titled novel of overpopulation, MAKE ROOM! MAKE ROOM! Yet these works are no less valid an examination of environmental problems than the most exhaustive statistical compilation."

Any theoretical or working definition of science-fiction comes hard for most critics or practitioners or teachers. Groff Conklin (in "What is Good Science Fiction?" LIBRARY JOURNAL, April 15, 1958, p. 1256) says, "The best definition of the best science fiction is that it consists of stories in which one or more definitely scientific notion or theory or actual discovery is extrapolated, played with, embroidered on, in a non-logical, or fictional sense, and thus carried beyond the realm of the immediately possible in an effort to see how much fun the author and reader can have exploring the imaginary outer reaches of a given idea's potentialities."

Alexei Panshin ("Science Fiction in Dimension: A Critical Column," FANTASTIC SCIENCE FICTION AND FANTASY STORIES, August 1971, pp. 107-111, 114) discusses the problems attendant to defining the genre and then analyzes several already proposed definitions. Here are just a few of his words:

"Let us be fair to science fiction. Since there is no common definition, let me quote three in case one proves adequate where another does not.

Reginald Bretnor (paraphrased by Heinlein): 'Science fiction (is) that sort of fiction in which the author shows awareness of the nature and importance of the human activity known as the scientific method, shows equal awareness of the great body of human knowledge already collected through that activity, and takes into account in his stories the effects and possible future effects on human beings of scientific method and scientific fact.' . . .

Kingsley Amis: 'Science fiction is that class of prose narrative treating of a situation that could not arise in the world we know, but which is hypothesized on the basis of some innovation in science or technology, or pseudo-science or pseudo-technology, whether human or extra-terrestrial in origin.'

Sam Moskowitz: 'Science fiction is a branch of fantasy identifiable by the fact that it eases the 'willing suspension of disbelief' on the part of its readers by utilizing an atmosphere of scientific credibility for its imaginative speculations in physical science, space, time, social science, and philosophy.'

This (Moskowitz), I think, is the best of these definitions, and still it doesn't adequately suggest the nature of sf. . .

We need a new paradigm.

Sf is a growing literature that is now fumbling for a wider audience than it has previously enjoyed. It is becoming pertinent, popular, and academically respectable. . .

But the audience will remain unfound and unsatisfied, and the potential untapped, as long as the old paradigm of science fiction remains our standard. . .

The paradigm I propose to replace science fiction is <u>speculative fantasy</u>. It is defined in this way: Speculative fantasy is a fictional form that uses removed worlds, characterized by distance and difference, as the setting for romantic-and-didactic narrative."

No television show of science fiction seems to have lingered longer and more lovingly in the mind of a large number of people than STAR TREK. If you were wildly ecstatic about that show and mourn its loss as that of a dear friend, you might be interested in THE STAR TREK CONCORDANCE OF PEOPLE, PLACES, AND THINGS, available for $5.00 for its 84 pages from Bjo Trimble, 417 N. Kenmore, Los Angeles, California 90004, but do add 25¢ for postage and handling. It does seem a little overpriced for its size, but it is, without question, a mass of information on just about anything anyone could care to know about the program. Synopses of the various episodes, casts, and an extensive glossary of names and places and events and things.

Winner of the 1972 HUGO AWARD for best amateur magazine was LOCUS, a periodical which appears twice a month and costs $3.00 for 12 issues and $6.00 for 26 issues. A good publication running from 6 to 10 pages full of material on SF, from announcements of new sf books coming out, changes in sf editorships in various publishing houses, convention news, other amateur sf magazines, short articles and book reviews, sf tv and movies, and all sorts of goodies. If you like sf, this is invaluable. Write 3400 Ulloa St., San Francisco 94116.

A three volume REFERENCE GUIDE TO FANTASTIC FILMS,SCIENCE FICTION, FANTASY, AND HORROR is to be published by Walt Lee (P.O. Box 66273, Los Angeles 90066). Prepublication price is $22.50 (after all three volumes are published the price will be $28.00). It will list films, directors, casts, dates, sources, and various other bits of information.

The winners of the 1972 HUGO awards were announced at the 30th World Science Fiction Convention in Los Angeles in early September. Winners included Philip Farmer's TO YOUR SCATTERED BODIES GO (best novel), Poul Anderson's THE QUEEN OF AIR AND DARKNESS (best novella), Larry Niven's "Inconstant Moon" (best short story), and A CLOCKWORK ORANGE (best dramatic presentation).

Earlier HUGO winners include:

1971--Larry Niven's RINGWORLD (novel), Fritz Leiber's ILL MET IN LANKHMAR (best novella), Theodore Sturgeon's "Slow Sculpture" (best short story).

1970--Ursala LeGuin's THE LEFT HAND OF DARKNESS (novel), Fritz Leiber's SHIP OF SHADOWS (novella), Samuel Delany's "Time Considered as a Helix of Semi-Precious Stones" (short story).

1969--John Brunner's STAND ON ZANZIBAR (novel), Robert Silverberg's NIGHTWINGS (novella), Harlan Ellison's "The Beast That Shouted Love at the Heart of the World" (short story).

1968--Roger Zelazny's LORD OF LIGHT (novel), Anne McCaffrey's WEYR SEARCH and Philip Jose Farmer's RIDERS OF THE PURPLE WAGE (tied for best novella), Harlan Ellison's "I Have No Mouth, and I Must Scream" (short story).

1967--Robert Heinlein's THE MOON IS A HARSH MISTRESS (novel), Jack Vance's THE LAST CASTLE (novelette), Larry Niven's "Neutron Star" (short story).

1966--Roger Zelazny's AND CALL ME CONRAD and Frank Herbert's DUNE (tied for best novel), Harlan Ellison's "'Repent, Harlequin,' Said the Ticktockman (best short fiction).

1965--Fritz Leiber's THE WANDERER (novel),Gordon Dickson's "Soldier, Ask Not" (short fiction).

1964--Clifford Simak's WAY STATION (novel), Poul Anderson's "No Truce with Kings" (short fiction).

1963--Philip Dick's THE MAN IN THE HIGH CASTLE (novel), Jack Vance's "The Dragon Masters" (short fiction).

1962--Robert Heinlein's STRANGER IN A STRANGE LAND (novel), Brian Aldiss' "The Hothouse Series" (short fiction).

1961--Walter Miller's A CANTICLE FOR LEIBOWITZ (novel), Poul Anderson's "The Longest Voyage" (short fiction).

1960--Robert Heinlein's STARSHIP TROOPERS (novel), Daniel Keyes' "Flowers for Algernon" (short fiction).
1959--James Blish's A CASE OF CONSCIENCE (novel), Clifford Simak's THE BIG FRONT YARD (novelette), Robert Bloch's "The Hell-Bound Train" (short story).
1958--Fritz Leiber's THE BIG TIME (novel), Avram Davidson's "Or All the Seas with Oysters" (short story).
1957--no awards.
1956--Robert Heinlein's DOUBLE STAR (novel), Murray Leinster's EXPLORATION TEAM (novelette), Arthur Clarke's "The Star" (short story).
1955--Mark Clifton and Frank Riley's THEY'D RATHER BE RIGHT (novel), Walter Miller's THE DARFSTELLER (novelette), Eric Russell's "Allamagoosa" (short story).
1954--no awards.
1953--Alfred Bester's THE DEMOLISHED MAN (novel).

"Mr. Bradbury has caught hold of a simple, obvious but overwhelmingly important moral idea, and quite properly, he will not let it go. That idea -- highlighted as every passing month produces a new terrifying lunacy: sputniks, super-sputniks, produced assaults on the moon, projected manned satellites -- is that we are in the grip of a psychosis, a technology-mania, the final consequence of which can only be universal murder and quite conceivably the destruction of our planet. . . he says, 'Science fiction is a wonderful hammer; I intend to use it when and if necessary, to bark a few shins or knock a few heads, in order to make people leave people alone.' " (from Clifton Fadiman's Prefatory Note to Ray Bradbury's MAPTIAN CHRONICLES)

During the last number of years, many men have devoted time and study to looking ahead, to predicting on the basis of where we are now where we are likely to be, or (more important) where we'd better try to be in the years ahead. Sometimes called the Futurists or Visionaries or Dreamers, they've produced a massive amount of literature, some of it guesswork, some prophecy, some scientifically predicated on what we are now and where we are now. Readers interested in their writings should look at magazines like THE FUTURIST, THINK, FUTURES, or DOT ZERO. A number of books are listed in the bibliography of this issue, but two particularly worth starting with are (1) the collection edited by Alvin Toffler, THE FUTURISTS (NY: Random House, 1972, with excerpts from writers like Paul Ehrlich, Margaret Mead, Marshall McLuhan, Arthur C. Clarke, Olaf Helmer, Daniel Bell, and R. Buckminster Fuller, and (2) Edmund Farrell's DECIDING THE FUTURE: A FORECAST OF RESPONSIBILITIES OF SECONDARY TEACHERS OF ENGLISH, 1970-2000 AD (Urbana: NCTE, 1971, # 12 of NCTE Research Reports), a brilliantly written and highly perceptive discussion of what English teaching is likely to be (or become) in the years ahead, based on the thoughts and predictions of leaders in the fields of electronic media, English teaching, learning theory, and secondary curriculum -- a book every English teacher should know.

A new book, one released too recently to get on the bibliography for this issue, is William Johnson (ed.), FOCUS ON THE SCIENCE FICTION FILM (Englewood Cliffs, NJ: Prentice Hall, 1972), a $2.95 paperback. It has many articles on filmmakers, a filmography and bibliography on science fiction films, a good article on the first of the science fiction filmmakers (Méliès), and some fascinating articles on science fiction films like DR. CYCLOPS, DESTINATION MOON, WHEN WORLDS COLLIDE, INVASION OF THE BODY SNATCHERS, THE TIME MACHINE, FARENHEIT 451, and 2001: A SPACE ODYSSEY. A book for fans of science fiction films or just plain films.

One of the major publishers of critical material on science fiction is Advent Publishers (P.O.Box 9228, Chicago 60690). Get on their mailing list for books of science fiction criticism which appear periodically. Especially valuable are Alexei Panshin's HEINLEIN IN DIMENSION, Lloyd A. Eshbach (ed.), OF WORLDS BEYOND, Basil Davenport (ed.), THE SCIENCE FICTION NOVEL, and Damon Knight (ed.), IN SEARCH OF WONDER.

Arthur C. Clarke, one of the foremost writers of science fiction writers, is quoted in the March 1963 SCIENCE DIGEST (p. 34) on the use of science fiction as a popularizer of science for young people. "How many young people have had the wonders of the universe first opened up to them or have been turned to scientific careers by the novels of Verne and Wells. Many distinguished scientists have paid tribute to the influence of these great masters; and a careful survey would, I believe, reveal that science fiction is a major factor in launching many youngsters on a scientific career."

"The trouble with the 'science fiction world' in which we live is that technology, instead of bringing Utopia, has brought us to the edge of self-destruction. Instead of building a shining civilization, we are caught up in a menacing rear-guard action against forces which make the very survival of civilization or of organic life itself beyond a relatively short period of years, a matter of serious debate. And as might be expected, the heightening awareness of this state of affairs has led to great discomfort in the science fiction community. It has led, in fact, to a schism between those who maintain science fiction's traditional values and others with a very different outlook. It is more than a generation gap; it is a serious philosophical confrontation mirroring that in the larger society." Richard Lupoff, "Science Fiction Hawks and Doves: Whose Future Will You Buy?" RAMPARTS, Feburary 1972, p. 25.

One of the best and most prolific authors of science fiction comments on English teachers' unwillingness to accept and recommend the genre in "SF: Clue to Creativity," LIBRARY JOURNAL, February 15, 1964, pp. 914-917. Isaac Asimov says, ". . . it seems a shame that forces sometimes operate to inhibit a youngster's enjoyment of science fiction. These forces often have their source in the English departments of our junior high schools and high schools. English teachers are not usually interested in either science or science fiction. Uncomfortable with tales of a world that is alien and seems fantastic to them, they take the easy way out and lump all science fiction with the absurdities found in comic books and monster movies. The easy way, but an unfortunate one.
I have received a great many letters from youngsters who are unhappy and puzzled because their English teachers not only denounce science fiction but penalize the student who makes use of a science fiction theme in writing a composition.
This tendency is diminishing, I think, but I would like to see it disappear. It would seem only fair that science fiction be integrated with literature as a whole and be judged, like other forms of writing, on its merits. If English teachers, through lack of experience, have trouble distinguishing good science fiction from bad, they have only to ask the help (and I say this in all seriousness) of any bright 12-year-old in their classes."

In his article, "Religion, Philosophy and Outer Space" (AMERICA, July 24, 1954, pp.420-421), Louis de Wohl discusses the theological and spiritual implications of science fiction and the need for theologians to read sf and take its ideas seriously and to discuss them, instead of ignoring them. "Christian writers should take notice of a form of art that seems to have come to stay. We cannot afford to sit back and let purely secular writers discover and exploit the galaxies. For they will not always content themselves with describing their own peculiar nightmares. There are signs that they will also describe their own particular heresies."

Isaac Asimov gives six rules-of-the-thumb for writing science fiction stories in his article, "Other Worlds to Conquer," THE WRITER, May 1951, pp. 148-151. Though the article is now 21 years old, the advice seems eminently sensible (and not only for would-be science fiction writers, but all writers of fiction). 1. "Don't waste time waiting for a completely original idea." 2."Don't make your story an essay." 3. "Don't be unfair to your reader." (don't play tricks). 4."Don't be inconsistent." 5. "Don't contradict a known scientific fact." 6. "Don't play with clichés."

For those English teachers who like to mix literary scholarship and criticism with science fiction (and the entities are not mutually exclusive), two books are particularly exciting. H. Bruce Franklin's FUTURE PERFECT: AMERICAN SCIENCE FICTION OF THE NINETEENTH CENTURY (NY:Oxford U Press, 1966) has sections on Hawthorne Poe, Melville, Bierce, Bellamy, and Twain (among many other writers). His insights are worth reading, though many sf enthusiasts would reject Poe or Hawthorne or Melville as having written anything truly in science fiction. Marjorie Hope Nicolson's VOYAGES TO THE MOON (NY: Macmillan. 1960, originally published in 1948) is a fascinating storehouse of ideas and information about man's fictional attempts to travel to the moon in the seventeenth and eighteenth centuries. With excellent illustrations and a delightful and witty and scholarly writing style, Dr. Nicolson informs and educates and stimulates her readers to take a look at many of the original documents she comments on. One of those books of great and exciting and witty scholarship.

If you're curious about the number of courses (or their nature) in science fiction taught at American colleges and universities, look at either Jack Williamson's comments in the May 1971 EXTRAPOLATION (the MLA Newsletter devoted to science fiction) or Thomas D. Clareson's "SF: The Academic Dimensions," FANTASY AND SCIENCE FICTION, May 1972. Academic respectability (if that's what it's called) does seem to have come to science fiction. Maybe English Departments in colleges will ultimately join the 20th Century, an unlikely but remotely possible thought.

In a highly critical review of Kingsley Amis' NEW MAPS OF HELL, W. E. Bentley lets fly with some nasty comments about the supposed heritage of science fiction generally and the moral tone of the genre.

"Mr. Amis commends the high moral tone which is a characteristic of S.F., without seeing it as an effect of the pomposity and megalomania which he deplores, and it would be wrong for the student to identify the spirit of S.F. with the classic morality themes. Everyman of the morality play may resemble Everyman of the S.F. story in his simple qualities and one-dimensional portrayal, but the creative impulses which placed them in their respective predicaments are poles apart.For one thing the basic tenet of S.F. is that there is nothing, including God and the Creation, which could be described as supernatural. There is a logical explanation for everything, and we only need time to find it. Since there is literally no room for the truth of human variability if S.F., the nearest approximation which can be allowed is the authenticity of the mathematical compromise. Everyman of S.F. is the son of Mr. Average Man, the unidentifiable statistical reality.

It is a curious fact that S.F. imposes conventions and formulas not only on its practitioners, but also on its critics and advocates. Everyone who writes of it must mention the flying saucer in GULLIVER'S, Bacon's NEW ATLANTIS, Thomas More, Frankenstein, and Aldous Huxley, since S.F. grapples to itself as many of the world's classics as it can as insurance against an offhand dismissal. Very little objection is raised to the appropriation of those works which are unclassifiable by ordinary standards (if a work cannot survive eclectic labelling it is not worth defending). . . "

"Science Fiction," ESSAYS IN CRITICISM, April 1962, pp. 203-207.

An excellent critical work (and one inexpensively priced) is Sam J. Lundwall's SCIENCE FICTION: WHAT IT'S ALL ABOUT (NY: Ace, 1971, 95¢). Fine for its history of sf, its discussion of science fiction writers, past and present, its comments on sf magazines, its bibliography, its everything. If some sf fans will fault it for its brief treatment of this or that or something, it's still an impressive buy, and one that any sf addict should have and one that anyone curious about sf and its possibilities should take a look at.

CURRENT READING: A Scholarly and Pedagogical Bibliography of Articles and Books, Recent and Old, on Science Fiction and Using Science Fiction in the Classroom

The lines between science fiction and fantasy and horror tales is a fuzzy one at best, and the line today between science fiction and the literature provided by futurists predicting the future from what they see around them today is just as fuzzy. Hence, the material listed below may sometimes seem less science fiction than it does something else, though what the something else might be is often difficult to explain. The bibliography is obviously incomplete and selective, a point that anyone conversant with science fiction is going to know immediately and something a neophye needs to recognize. Still, these entries should introduce newcomers to the field to a few books, and oldtimers should recognize some old and standard friends and they just might possibly find an entry they did not know.

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